SUPPORTING SPECIAL POPULATIONS IN NEW YORK STATE CAREER & TECHNICAL EDUCATION PROGRAMS
Support for the CTE Technical Assistance Center (CTE TAC) is provided through a state contract under the Strengthening Career and Technical Education Act (Perkins V) administered by the New York State Education Department.

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Special populations include students who “must overcome barriers that may require special consideration and attention to ensure equal opportunity for success in an educational setting” (U.S. Department of Education). Federal law requires that public schools provide support that will ensure these students have equal access to educational resources and opportunities.

The Strengthening Career and Technical Education for the 21st Century Act, commonly known as Perkins V, explicitly seeks to develop learners’ academic knowledge and technical skills in order to increase employment opportunities for populations who are chronically unemployed or underemployed, including:

- Individuals with disabilities
- English language learners
- Individuals from economically disadvantaged families, including low-income youth and adults
- Individuals preparing for non-traditional fields
- Single parents, including single pregnant women
- Out-of-workforce individuals
- Homeless individuals
- Youth who are in, or have aged out of, the foster care system
- Youth with parents on active duty in the armed forces. (NAPE [PDF])
The key for successful retention of any learner is to create a challenging, non-stigmatizing learning environment that meets the individual learner needs. This requires teachers to develop flexible curricula that can be adapted to learner needs and implement pedagogical and classroom management practices that promote inclusion and belonging.

To assist in these efforts, the New York State Career & Technical Education Technical Assistance Center (CTE TAC) has developed resources to help CTE teachers accommodate needs of high school students who are considered “at-risk” of failing academically or dropping out of school. The first installment of this series, Supporting All Students in New York State Career & Technical Education Programs [PDF], explores general strategies appropriate for students of all backgrounds and abilities as well as specific strategies tailored to the unique circumstances of students with disabilities (SWDs) and English language learners (ELLs).

This resource, the second in the series, provides current data on enrollment and educational outcomes for the other special populations within CTE programs in New York State. It recommends research-informed and easily implemented strategies for educators that can help to ensure these students are engaged in school, motivated to graduate, and provided with equitable opportunities to learn.

INCLUSIVE LANGUAGE FOR SPECIAL POPULATIONS

This document provides guidance on the preferred language for speaking with or about special populations; however, it occasionally includes terminology that appears to deviate from these recommendations. Following the guidance of the

*Note: While out-of-workforce individuals are addressed in Perkins V, this population primarily consists of adults. Therefore, it is not addressed specifically in this guide on supporting secondary students.
Association for Career & Technical Education (ACTE) [PDF], exact terminology is used to quote or directly reference language in Perkins V or other legislation. Otherwise, more inclusive language is typically used, in an effort to model best practices.

For definitions of key terms used in this guide, refer to the Glossary of Terms. Terms defined in the glossary appear in bold purple text for ease of reference.

**ABOUT IMAGES IN THIS GUIDE**

Images are used to illustrate students engaged in CTE activities and should not be interpreted as implying that a student or students depicted belong(s) to any particular special population.

*Photo: Courtesy of Herkimer-Fulton-Hamilton-Otsego BOCES*

**SUPPORT FOR TEACHERS**

The New York State CTE TAC conducts professional development for CTE teachers, many of which focus on the needs of special populations. Visit the Professional Development Calendar and Archive on the CTE TAC website to watch recordings of past offerings and for information about upcoming live events, some of which may earn NYSED CTLE credits.

The National Dropout Prevention Center is a clearinghouse on issues related to dropout prevention that develops research-based practices and strategies to increase graduation rates in schools across the U.S. An on-demand workshop specifically for teachers of CTE is one of many professional development resources available on NDPC’s website.
# DATA: REPRESENTATION OF SPECIAL POPULATIONS BY CTE CLUSTER
## NEW YORK STATE, 2021-22

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*Note: Rows do not equal 100%. A single student may belong to more than one special population.*
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<th>English Learners</th>
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<th>Parent in Active Military</th>
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*Source: NYSED 2022*
1 ECONOMICALLY DISADVANTAGED STUDENTS
Economically disadvantaged students are identified as those who participate in, or whose family participates in, economic assistance programs such as the free or reduced-price lunch programs, Social Security Insurance, Food Stamps, Foster Care, Refugee Assistance, Earned Income Tax Credit, Home Energy Assistance Program, Safety Net Assistance, Bureau of Indian Affairs, or Family Assistance: Temporary Assistance for Needy Families (NYSED).

In the 2021-22 school year, over half of students in New York State public secondary schools (55.2 percent) were economically disadvantaged (NYSED). These students had lower graduation rates (82 percent versus 92 percent) and higher dropout rates (7 percent versus 3 percent) than peers who were not economically disadvantaged.

Several factors contribute to these adverse educational outcomes:

- Illness, housing instability, and caregiving responsibilities lead to rates of chronic absenteeism that are double or triple those of students who are not economically disadvantaged (Taylor 2017).
• Substandard housing, inadequate medical care, and poor nutrition negatively impact children’s physical and cognitive development (Parrett & Budge 2016).

• Children experiencing poverty may experience less stimulating learning environments outside of school (NASSP 2022). As a result, students living in poverty often start their educational experience significantly behind their more affluent peers in terms of their prior knowledge and their literacy and mathematics skills (Balfanz 2012 [PDF]; Taylor 2017).

• Economic hardship can adversely affect students’ mental health, self-efficacy, self-image, and motivation to do well in school (Balfanz 2012 [PDF]; Parrett & Budge 2016).

• Implicit bias may negatively influence teachers’ perceptions and expectations of socioeconomically disadvantaged students. These subconscious beliefs and attitudes can influence how teachers instruct, evaluate, and advise students, contributing to lower educational outcomes. Negative biases can, in turn, reinforce stereotype threat and negative self-perceptions among students, which lead to disengagement, behavioral issues, and emotional responses that can diminish their academic performance and engagement (Gershenson, Holt and Papageorge 2015 [PDF]).
Robert Balfanz, of the Everyone Graduates Center at Johns Hopkins University, observed: “Poverty keeps students from attending school regularly, diminishes their ability to pay attention in class, and undermines a foundational driver of positive student behavior, the lived experience that effort leads to success” (Balfanz 2012 [PDF]). Career and technical education counteracts these forces by clearly demonstrating how schoolwork is relevant to students’ future employment prospects.

CTE offers “something that traditional coursework does not” when it comes to enhancing students’ future employability and career readiness (Plasman et al. 2021). After graduation, former CTE students are more likely to be employed, have higher earnings, and are less likely to experience poverty than non-CTE students, with greater effects for those who are economically disadvantaged (Ecton & Dougherty 2021; IRP 2019 [PDF]; Rabren et al. 2014). Therefore, CTE “may be especially beneficial as a stopgap to prevent some of the worst possible outcomes associated with poverty and disengagement” (Ecton & Dougherty 2021).

Despite its well-documented positive outcomes, economically disadvantaged students are no more likely to participate in CTE programs (54.8 percent) than all secondary students as a group (55.2 percent), both within specific CTE clusters and in CTE as a whole. Teachers can help to ensure all interested students have equitable opportunities to participate in CTE by promoting inclusion and mitigating potential barriers to participation.
The following tips and resources provide general guidance on teaching and supporting economically disadvantaged students. It is important to note that most of the special populations identified in Perkins V are more likely than average to experience economic hardship, in particular certain highly mobile populations (including students who are migrant, experiencing homelessness, or have been in foster care). In addition to this chapter, see the relevant sections of this guide for more information and targeted strategies for economically disadvantaged students who also are members of other special populations.

**ECONOMICALLY DISADVANTAGED AS % OF SELECTED POPULATIONS**

All NYS Secondary Students, 2021-22

<table>
<thead>
<tr>
<th>Population</th>
<th>Not economically disadvantaged</th>
<th>Economically disadvantaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent(s) on active duty</td>
<td>66.2%</td>
<td>33.8%</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td><strong>44.8%</strong></td>
<td><strong>55.2%</strong></td>
</tr>
<tr>
<td>Students with disabilities</td>
<td>29.4%</td>
<td>70.6%</td>
</tr>
<tr>
<td>Students of color</td>
<td>27.5%</td>
<td>72.5%</td>
</tr>
<tr>
<td>English language learners</td>
<td>17.6%</td>
<td>82.4%</td>
</tr>
<tr>
<td>Migrant</td>
<td>5.3%</td>
<td>94.7%</td>
</tr>
<tr>
<td>Foster care</td>
<td>2.1%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Homeless</td>
<td>0.9%</td>
<td>99.1%</td>
</tr>
</tbody>
</table>

Source: NYSED 2022

CTE may be especially beneficial as a stopgap to prevent some of the worst possible outcomes associated with poverty and disengagement.

- Walter Ecton & Shaun Dougherty, “Heterogeneity in High School Career and Technical Education Outcomes”
Students who are economically disadvantaged may be “invisible” within the larger student body. However, enrollment data suggest that the majority of NYS secondary students may face obstacles due to economic hardship. The strategies that follow offer ways to ensure that all students can fully participate and feel included in the CTE classroom.

**Plan ahead for student needs.** Assume that every class includes students who are economically disadvantaged and plan accordingly. Proactively addressing their needs in your curriculum and classroom management plan communicates to students that they are important and promotes feelings of belonging.

**Consider the root causes of student behaviors.** Impacts of poverty may manifest as behavioral issues such as chronic absenteeism, tardiness, attention difficulties, sleeping in class, lack of engagement, or interpersonal difficulties. Disciplining students for factors beyond their control can signal that they are not conforming to the norms of school and may lead them to withdraw, act out, or stop attending (Balfanz 2012 [PDF]). Getting to know your students on a personal level can help you identify the interventions that are most appropriate, based on their specific needs and circumstances.
**Adopt a democratic classroom model.** Inviting students to help make decisions in the classroom demonstrates that their opinions matter and their voices are worth hearing (Phillips 2018). **At-risk** youth often live in unpredictable and uncertain home environments, which can result in pervasive feelings of powerlessness (Riddell 2020). Allowing students to exercise power, when appropriate, develops their real-world problem-solving and negotiation skills while establishing a culture of mutual respect.

**Use inclusive language.** APA Style recommends using **person-first language**, such as “students who are economically disadvantaged” or “families who receive temporary assistance benefits.” Avoid terms with negative connotations, such as “poverty-stricken” or “the poor.” The Association for Career and Technical Education’s **Inclusive Language Guide [PDF]** advises avoiding the term “low-income” unless quoting legislation, such as the Perkins V special population category “individuals from economically disadvantaged families, including low-income youth and adults.”

**Promote positive beliefs.** Economic hardship can facilitate “learned helplessness.” Students may believe that the odds are stacked against them, and they will be unable to get out of the cycle of poverty (Johnston 2022). Whenever possible, focus on students’ strengths, rather than deficits. Nurture intrinsic motivation by maintaining and communicating high standards for all students (Suttie 2016). Opportunities to meet relatable role models, such as CTE graduates from economically disadvantaged backgrounds, can play a significant role in influencing students’ self-perception and motivation to learn (Burke 2019).

**Empower students and families to self-advocate.** Have information readily available regarding support services within the community. Your school’s counselors and consultant teachers can help you identify appropriate resources. Promote services to the entire class or student body to avoid stigmatization, protect the privacy of individual students, and counteract perceptions of “special treatment.”

**Tell them how CTE can help.** Motivate students by raising their awareness of the ways in which CTE can positively impact their future employability, potential earnings, career preparedness, and college readiness. Advance CTE’s website offers a variety of free resources for engaging, recruiting, and retaining CTE students and their families.

**Build community in the classroom.** Families facing economic challenges may need to relocate frequently, making it difficult for students to establish relationships with teachers and peers. In addition to negative impacts on students’ mental health and feelings of inclusion, social isolation is correlated with lower academic performance. Help students integrate into the classroom community through introductions, getting-acquainted activities, and collaborative learning.
In a 2021 workshop for the NYS CTE TAC, Dina Refki observed that economically disadvantaged students experience “poverty of resources, poverty of time, and poverty of knowledge about how things work.” Compared to more affluent peers, they may have less access to technology, quiet spaces for study and homework, and materials for completing projects outside of class. Below are some tips for addressing these inequities to promote academic success in CTE programs.

**Acknowledge and accommodate disparities in access to resources.** In CTE programs specifically, students may be unable to purchase required supplies, such as cosmetology kits, tools, and uniforms (e.g., medical scrubs or chef’s coats). Become familiar with resources and programs available in your school, district, or local community, and share this information with the entire class. Consider establishing partnerships with local businesses, recent graduates, or professional organizations to sponsor CTE students by donating new or gently used supplies (e.g., a hair salon donates scissors for cosmetology students). As appropriate, be prepared to offer alternative assignments or activities for students with limited resources.
**Implement Universal Design for Learning.** The stress of living in poverty can impair children's cognitive development, particularly in the regions of the brain associated with language, reading, executive functions, and spatial skills (Noble et al. 2015). UDL reduces stress in the classroom by offering flexibility and options in how students learn as well as proactively identifying and mitigating barriers to learning that can foster frustration, disengagement, and negative self-perceptions.

**Support executive functioning.** Chronic exposure to poverty-related stressors alters the neurobiological systems that support executive functioning. By providing hands-on, experiential learning that connects to real-world contexts, CTE is a great opportunity for these students to develop skills and approaches that can strengthen and expand their personal agency, improve academic performance, and reduce the achievement gap for economically disadvantaged students (Balfanz 2012 [PDF]; Deer et al. 2020 [PDF]).
**Reduce cognitive load.** A “crowded brain” works less effectively (Riddell 2020). Reduce students’ cognitive load by posting visual reminders in classrooms, labs, and workshops. In CTE programs, job aids, such as posters, checklists, process diagrams, and step-by-step instructions may be particularly appropriate and effective. Job aids can be created collaboratively as a class learning activity to provide opportunities for students to practice executive functioning skills such as breaking down complex tasks into a sequence of smaller steps. (To get started, check out the suggested learning activity CREATING A JOB AID FOR ENGLISH LANGUAGE LEARNERS in this guide.)

Bookend each class session with an overview of what will be covered and a recap of key ideas to provide a context for learning and to improve students’ recall and retention. Allow students to keep their school supplies, books, notebooks, and other learning materials in the classroom so they don’t have to worry about losing or forgetting to bring them to school.

**Scaffold learning.** Students who are economically disadvantaged often come to the classroom with less academic background knowledge and more limited vocabularies than their peers. Offer appropriate scaffolds that individual students can use as needed to support their learning, such as glossaries, dictionaries, visual aids, and graphic organizers. Provide learning materials in advance so students have time to review them at their own pace, ask questions, or consult outside resources; doing so can help to ensure that everyone can fully participate in classroom activities.

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**[Economically disadvantaged students] have poverty of resources, poverty of time, and poverty of knowledge of how things work.**

- Dina Refki

“Providing Critical Support for Students from Special Populations”
Developing entrepreneurial skills can particularly benefit individuals from economically disadvantaged backgrounds (Kugler et al. 2017 [PDF]). Entrepreneurial projects are appropriate for almost any CTE concentration and allow teachers to demonstrate how CTE programs connect to real-world employment while equipping students with the skills and knowledge required to create and operate a small business.

A basic framework for an entrepreneurial project could include the following elements:

1. A research-informed case for a small business that could be launched with limited resources.
2. A high-level business plan with information about the mission and goals of the business as well as its target market and competitors.
3. A marketing strategy to promote their product or service, which might include logos, slogans, social media outreach, and advertising prototypes.
4. A budget that includes start-up costs, operating expenses, and financial projections, including strategies for minimizing costs and generating revenue.
5. A live presentation, written business plan, video, and/or “pitch deck” (PowerPoint presentation) to share with the class.

To boost student engagement, consider hosting a “Shark Tank”-style event in which students present their ideas to a panel for feedback. Team-based projects could connect students across CTE programs to leverage their specific skills and expertise and develop their collaboration and communication skills. For example, an agricultural sciences student, a marketing student, a business student, and a graphic design or video production student might work together to pitch a community-supported agriculture business.

**LEARN MORE**

Although the competition was suspended in January 2023, the [New York State High School Business Model Competition’s website](https://www.businessmodelcompetition.org) offers a number of resources you can use or adapt for your CTE classes, including guidelines on how to perform customer discovery research, a detailed business model canvas, and video testimonials on the value of entrepreneurship.
The CTE Technical Assistance Center of New York’s [At-Risk Youth web page](#) includes links to reports and articles that address challenges and opportunities for economically disadvantaged students and other at-risk populations. The [Professional Development Calendar and Archive](#) provides on-demand access to recorded workshops specifically developed for CTE teachers, including Dina Refki’s webinar “[Providing Critical Support for Students from Special Populations, Including Students Pursuing Gender Nontraditional CTE Programs](#).”

ASCD Educational Leadership’s December 2022 issue [Confronting Poverty in Schools](#) “explores key strategies, understandings, and resources educators can draw on to better support students and families living in economic instability and to reduce barriers to learning and achievement.” Non-members can purchase the issue on ASCD’s website.

The National Alliance for Partnerships in Equity (NAPE) publication [Equity in CTE & STEM Root Causes and Strategies: A Call to Action](#) examines disparities in CTE participation and offers strategies to address them. A [free summary report](#) is available for non-members.
The big idea: Just over half of CTE concentrators (54.8 percent) are economically disadvantaged, closely mirroring their representation within the total NYS secondary student population (56.1 percent). Economically disadvantaged students are somewhat overrepresented in the Hospitality & Tourism (65.6 percent), Information Technology (61.8 percent), and Arts, AV Tech & Communication (61.5 percent) career clusters. They are strikingly underrepresented in Finance (16.7 percent).

Source: NYSED 2022
The big idea: This chart illustrates the distribution of NYS CTE concentrators across career clusters. Percentages shown for each population total 100. The distribution of economically disadvantaged students by cluster is remarkably similar to the distribution of all students across clusters.

Source: NYSED 2022
STUDENTS PURSUING CAREERS IN NON-TRADITIONAL FIELDS

A note on language: Owing to limited availability of data and research, this chapter refers to “male students”/“men” and “female students”/“women.” However, the recommendations and strategies provided may apply to or be adapted for students who identify as any gender identity (e.g., transgender, non-binary) that is underrepresented within a CTE course, program, or concentration.
**Non-traditional fields** include “occupations or fields of work, such as careers in computer science, technology, and other current and emerging high skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed” (U.S. Department of Education’s Office of Career and Technical Education). Visit the Economic Development and Employer Planning System’s website for a comprehensive list of nontraditional career clusters based on the latest data from the U.S. Bureau of Labor Statistics.

Overall, about 1 in 5 CTE concentrators in New York State (19.3 percent) is preparing for a career in a non-traditional field, and these students are overwhelmingly female. Among the 2021-22 cohort, roughly 5500 CTE concentrators had ever been enrolled in a non-traditional program, and 90 percent of these students were female (NYSED 2023).

Looking at the data in a different way, 36.7 percent of the female CTE concentrators in the 2021-22 cohort participated in a non-traditional CTE program, as compared to just 2.9 percent of male CTE concentrators. In other words, female CTE concentrators are 14 times more likely to be in a non-traditional program than their male counterparts.

It’s important to note that these students are not evenly distributed across CTE programs and career clusters. As shown in the graphs at the end of this section, more than half of all female CTE concentrators are enrolled in just three career clusters: Health Science (21.4 percent), Human Services (20.2 percent), and Arts, AV Tech & Communications (14.2 percent). As a result, female students are the majority in these clusters, and many of the programs within these clusters are classified as non-traditional for men. Acknowledging this situation, the guidance in this chapter pertains to male students preparing for careers in traditionally female-dominated fields as well as female students preparing for careers in traditionally male-dominated fields.

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**In 2021-22, 19.3% of CTE concentrators were preparing for a career in a non-traditional field.** Comparable data are not available for all secondary public school students.

*Source: NYSED 2022*
Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in any education program or activity offered by a recipient of federal financial assistance. You might have heard about Title IX as it pertains to funding for women’s sports programs, but the applicability of the law is much broader:

1. Title IX applies to all educational programs that receive federal funding;
2. It prohibits any sex-based discrimination (i.e., the law does not only apply to discrimination against women);
3. Discrimination "on the basis of sex" also includes discrimination based on sexual orientation and/or gender identity and pregnancy (U.S. Department of Education).

The Department of Education’s Office of Career, Technical, and Adult Education (OCTAE) and Office for Civil Rights (OCR) have issued guidance [PDF] stating that all students, regardless of their sex or gender, must have equal access to
Students Pursuing Careers in Non-Traditional Fields

the full range of CTE programs offered. The guidelines outline four specific areas that must be considered:

• **Recruitment and promotional activities** should “portray a broad range of occupational opportunities and not be limited on the basis of sex, and recruiting teams [should] include persons of different sexes.”

• **Admissions and access to classes and schools** may not “exclude any person, on the basis of sex, from access to any CTE classes or from admission to any institution of career and technical education.”

• **Counseling and appraisals** may not “direct or urge any student to enroll in a particular career or program or predict a student’s prospects for success in any career or program based upon the student’s sex.”

• **Procedural requirements**

  • **Notice of non-discrimination**: Title IX requires schools to publish an annual notice of nondiscrimination that includes the name and contact information for the Title IX coordinator and reaches students, parents, employees, and the general public.

  • **Title IX Coordinator**: Schools must designate at least one employee to coordinate Title IX compliance. All teachers should know the name and contact information for their school’s Title IX coordinator and their school’s procedure for reporting concerns or grievances.

  • **Grievance procedures**: Schools must adopt and publish grievance procedures for the prompt and equitable resolution of sex discrimination complaints.

In addition to complying with the legal obligations above, schools are responsible for ensuring equitable access to CTE by eliminating discriminatory practices and taking proactive steps to expand the participation of students in fields where one sex is significantly underrepresented. This chapter can help to support your efforts by offering best practices to promote inclusion and academic success for CTE students preparing for careers in non-traditional fields.
Occupational sorting refers to a combination of factors that encourage men and women to pursue different roles in the workforce. Societal, cultural, or family norms regarding “appropriate” roles for men and women, peer pressure to avoid non-traditional roles and training, and sex-based harassment can all influence students’ choice of an educational program of study and ultimately their career path (U.S. Department of Education 2016 [PDF], Chamberlain & Jayaraman 2017 [PDF]).

The resulting occupational segregation perpetuates a wage gap between male and female workers in the U.S. Nine of the 10 highest-paying college majors analyzed in a study sponsored by Glassdoor were found to be male-dominated while six of the 10 lowest-paying majors were female-dominated (Chamberlain & Jayaraman 2017 [PDF]).
Occupational segregation also limits opportunities to diversify traditionally gendered occupations and challenge gender stereotypes. Within fields that are traditionally gendered, this means fewer same-gender role models for students who may be considering non-traditional fields. Role models have a significant impact on career aspirations, career choice, and attitudes toward non-traditional careers, especially among female students (West 2014, cited in Illinois Community College Board n.d. [PDF]).

The persistence of sex-based stereotypes can trigger stereotype threat, the fear of confirming a negative stereotype (for example, “women are bad at math” or “men are less nurturing”). Stereotype threat can cause students to underperform on learning tasks and academic assessments (Dayton n.d. [PDF]), which in turn reinforces negative self-perceptions among students that they do not belong or are unable to succeed in a non-traditional field.

Finally, inclusion and belonging are critical factors in students’ intention to persist in a non-traditional field of study. A large study of STEM majors concluded that having friends within the same area of study can support STEM students’ outcomes, particularly among women, and that friends’ support of STEM interests is correlated with greater interest in STEM careers (Dayton n.d. [PDF]). At the same time, women who experience highly competitive or isolating STEM environments are especially likely to leave the field. Compounding feelings of social isolation, sex-based or gender-based harassment is more likely within fields where students of one sex are a small minority, creating a potentially hostile environment for non-traditional students (U.S. Department of Education 2016 [PDF]).
While there are few jobs with requirements that limit employment to one sex or gender, students may not be well-informed about career opportunities that deviate from traditional gender roles. With its emphasis on career readiness, CTE coursework can expand students’ awareness of jobs titles and employment opportunities they had not previously considered, including those in non-traditional fields. Some of these fields may offer higher wages and benefits that can promote individual economic mobility in addition to narrowing the gender wage gap over time.

The experiential and applied learning students experience in CTE can help female students improve their self-confidence and efficacy, which in turn have been found to stimulate interest in related fields and careers. One study found that interpersonal and hands-on experiences are effective for engaging young women’s interest in STEM careers because “for women, self-confidence precedes interests and career goals” (Allison and Cossette 2007, cited in Illinois Community College Board n.d. [PDF]). Other studies have identified real-world application, small-group learning, and problem-based projects, all of which are frequently
emphasized in CTE coursework, as effective strategies for improving students’ self-efficacy and engagement in non-traditional fields (Dayton n.d. [PDF]).

In a 2021 webinar conducted for the NYS CTE TAC, Dina Refki, Clinical Associate Professor at the Berkeley College of Public Affairs and Policy and Executive Director of the Center for Women in Government in Civil Society, noted that experiential learning is particularly important for women in non-traditional fields because they have been socialized to be more “risk-averse.” She observed: “We need to experience what it is like to be an automotive mechanic. And so we bring women into that space and have them experience what it feels to be in that space… because it really instills that assurance that, yes, I can do that, yes, that sounds fun, and I can actually succeed.”

We need to... bring women into that space and have them experience what it feels to be in that space... because it really instills that assurance that, yes, I can do that, yes, that sounds fun, and I can actually succeed.

- Dina Refki

“Providing Critical Support for Students from Special Populations”
INCLUSION STRATEGIES FOR STUDENTS IN NON-TRADITIONAL FIELDS

Photo: Courtesy of Orange-Ulster BOCES

**Provide equal opportunities for learning.** Under Title IX, all students should be permitted to attempt every task, regardless of their sex, gender identity, or pregnancy status. To reduce barriers to participation, offer supports, facilitate teamwork, or suggest ways students can build their strength and stamina to perform physically demanding tasks. Ensure that uniforms, tools, gloves, and safety equipment are available in multiple sizes. (Adapted from California Community Colleges [PDF])

**Promote representation in learning materials and environments.** Students are more likely to imagine themselves as belonging in a particular field or profession when they see people like themselves within the classroom and curriculum. Posters, videos, images, and texts that feature people in non-traditional gender roles doing serious work can send a powerful message. Some materials may be eligible for purchase using Perkins funds.
**Use inclusive language.** The Association for Career and Technical Education’s Inclusive Language Guide [PDF](#) advises avoiding gendered language, including terms and constructions that presume maleness (e.g., “mankind” or “chairman”) and those that imply a gender binary (e.g., “he/she”). They/them/their(s) are widely accepted as singular, gender-neutral pronouns. Normalize pronoun identification among all students and consistently use students’ identified pronouns. Review and revise teaching and recruitment materials to incorporate gender-neutral language.

**Actively combat stereotypes.** The National Alliance for Partnerships in Equity identifies **stereotype threat** as a common cause of self-selected exclusion from CTE and STEM pathways. Reduce its effects by actively demonstrating that men and women are equally capable of success in non-traditional fields. Incorporate case studies, employment data, and guest speakers into the curriculum to provide compelling evidence. Engage students in discussions about how incorporating diverse perspectives, including gender **diversity**, could improve outcomes within your field and profession.

**Incorporate positive peer influence.** To counteract negative peer pressure, facilitate peer-to-peer interaction with non-traditional students who have been successful in your CTE program or other CTE programs within your school or district as well as recent graduates.

**Reduce social isolation.** Collaborative learning activities can help underrepresented students build interpersonal relationships with peers. Maintain a civil, supportive classroom environment by monitoring for **microaggressions** and upholding a no-tolerance policy regarding sex- or gender-based harassment.

**Identify root causes of student attrition.** When non-traditional students choose to leave your CTE program, follow up to learn more about the basis for their decision and ask for input on ways to better retain, support, and encourage future students.
TEACHING STRATEGIES FOR STUDENTS IN NON-TRADITIONAL FIELDS

Make a case for non-traditional employment. To better understand their own motivations and to help them communicate with peers, family members, and others, engage students in discussions and activities in which they examine and articulate why pursuing a non-traditional field is worth it. Research suggests that men are likely to favor “agency goals,” such as higher salaries or expanded job opportunities, while women tend to emphasize “communal goals,” such as helping others or serving as a role model (Dayton n.d. [PDF]). Expand students’ perspectives by prompting them to consider both.

Leverage experiential learning: Internships, apprenticeships, job shadowing, or other work-based learning activities allow students to experience what it’s like to work in a non-traditional field while gaining practical skills and knowledge that can prepare them for a wide range of careers. The Association for Career and Technical Education (ACTE) website features a robust repository of resources on work-based learning, including research on outcomes, informational webinars, and toolkits to help you get started.
Clarify expectations for performance. According to the California Community Colleges [PDF], “research shows that non-traditional students can interpret their performance more critically than traditional students, underestimating their potential.” Cultivate a strengths-based approach that emphasizes what students are doing well and conduct ongoing, formative assessment to identify areas for improvement.

Build self-confidence. Convey to students that skills and ability are not innate but can be acquired with effort and persistence. Dina Refki notes that students who have a growth mindset are much more likely to succeed in a CTE program than students who have a fixed mindset. Break down complex tasks and projects into smaller, discrete parts to promote feelings of competency and accomplishment as students complete each step.

Implement culturally responsive teaching methods: Culturally responsive teaching (CRT) strategies take into account the cultural background and experiences of students. For example, observations of STEM classrooms conclude that they tend to be “more goal-based, hierarchical, and independent than non-STEM classrooms, perhaps appealing more to boys’ preferences than girls.” (Dayton n.d. [PDF]). Strategies that have proved particularly effective for female students include collaborative learning, culturally relevant curriculum materials, and positive reinforcement.

Expand your toolkit. Pursue professional development to learn more about ways to interrupt implicit bias, microaggressions, and stereotypes and foster a safe and supportive classroom environment for all students. The CTE Technical Assistance Center of New York’s Professional Development Calendar includes both archived and upcoming workshops. The Title IX coordinator at your school might be able to coordinate activities for your campus or recommend other external training opportunities.

Photo: Government of Prince Edward Island (CC BY-NC-ND 2.0)
SUGGESTED LEARNING ACTIVITY
INFORMATIONAL INTERVIEWS

Role models can have a significant influence on students’ decision to participate in a non-traditional CTE program and ultimately to pursue a non-traditional career. In this assignment, students will conduct an informational interview with someone who works in a non-traditional field. In addition to beginning to build a professional network, students will practice valuable job-seeking, interpersonal, and communication skills.

Students can prepare for the interview by conducting background research about a job title or occupation of interest. The CTE TAC’s Regional Occupational Projections Database, the U.S. Department of Labor’s O*Net Online, and the Occupational Outlook Handbook from the U.S. Bureau of Labor Statistics are comprehensive “one-stop” resources that provide reliable, up-to-date information on required qualifications and education, employment outlook, and earning potential for virtually any job title or occupation.

Next, the students should prepare a list of questions. Topics to address might include:
- The professional’s career path, including their educational background and how they got into their current position;
- How participating in CTE or other work-based learning prepared them for their career;
- Their job duties and responsibilities;
- What a “typical” day on the job looks like;
- The challenges and rewards of working in a non-traditional field;
- Advice for students considering a career in this field; and
- Strategies for breaking into the field and overcoming potential barriers to participation.

Equip students for success by providing guidance on identifying and contacting interview subjects, writing good questions, and professional etiquette. Mock interviews with classmates can help students prepare by practicing their delivery, refining their questions, and building self-confidence.

Findings from the interview and background research can be summarized in a written report or as an in-class presentation to raise all students’ awareness of potential careers in your field. Alternatively, you might require a format that showcases the specific communication skills emphasized in your CTE program, such as a website for information technology, a video or podcast for AV production, a promotional ad for marketing, or an infographic or poster for graphic design. Consider archiving student projects in a digital repository or website for reference in future classes or recruitment activities for your CTE program.

LEARN MORE

The article “How to Get the Most Out of an Informational Interview” from Harvard Business Review provides an excellent summary of best practices that teachers can share with students as a reference and/or incorporate into the assignment details.
SUPPORT FOR TEACHERS OF STUDENTS IN NON-TRADITIONAL FIELDS

The National Alliance for Partnership in Equity (NAPE) Equity in CTE & STEM Root Causes and Strategies report offers a comprehensive analysis of factors influencing underrepresented learners’ representation and engagement in CTE and STEM along with actionable strategies to address them.

Many professional organizations and trade associations offer resources and coordinate events to support non-traditional students, including scholarships, mentorships, networking events, teaching materials, case studies, and career fairs. Some of their offerings are tailored specifically to the needs of K-12 students and educators. Examples include:

- National Alliance for Partnership in Equity
- The NET (Nontraditional Employment and Training) Program
- National Institute for Women in Trades, Technology & Science
- National Center for Women & Information Technology
- National Girls Collaborative Project
- Girls in Tech
- American Association for Men in Nursing
- Women in Manufacturing
- Society of Women Engineers
- NYC Men Teach
- Educators Rising

The CTE Technical Assistance Center of New York’s Non Traditional Students web page includes links to resources, articles, and organizations that support inclusion, equity, and belonging for students pursuing careers in non-traditional fields.

In 2023, NYSED published Creating a Safe, Supportive, and Affirming School Environment for Transgender and Gender Expansive Students: 2023 Legal Update and Best Practices [PDF], to help create a safe, supportive, and affirming school environment for transgender and gender expansive students. The document provides detailed information on student rights, best practices, and guidance for teachers and school staff, as well as links to recommended resources.
### DATA: CTE CONCENTRATORS BY GENDER

#### GENDER REPRESENTATION BY CTE CLUSTER

New York State, 2021-22

<table>
<thead>
<tr>
<th>Career Cluster</th>
<th>Female CTE Concentrators</th>
<th>Male CTE Concentrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Services</td>
<td>93.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Health Science</td>
<td>85.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Arts, AV Tech &amp; Comm.</td>
<td>54.3%</td>
<td>45.7%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>52.6%</td>
<td>47.4%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>51.8%</td>
<td>48.2%</td>
</tr>
<tr>
<td>Law, Public Safety, Cor. &amp; Sec.</td>
<td>44.5%</td>
<td>55.5%</td>
</tr>
<tr>
<td><strong>All CTE Concentrations</strong></td>
<td><strong>41.5%</strong></td>
<td><strong>58.5%</strong></td>
</tr>
<tr>
<td>Agri., Food &amp; Nat. Res.</td>
<td>40.6%</td>
<td>59.4%</td>
</tr>
<tr>
<td>Business Mgmt. &amp; Admin.</td>
<td>40.5%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Marketing</td>
<td>38.2%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Finance</td>
<td>36.2%</td>
<td>63.8%</td>
</tr>
<tr>
<td>STEM</td>
<td>24.5%</td>
<td>75.5%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>23.3%</td>
<td>76.7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20.8%</td>
<td>79.2%</td>
</tr>
<tr>
<td>Arch. &amp; Const.</td>
<td>11.1%</td>
<td>88.9%</td>
</tr>
<tr>
<td>Transp., Distr. &amp; Logis.</td>
<td>9.4%</td>
<td>90.6%</td>
</tr>
</tbody>
</table>

**The big idea:** This chart illustrates the gender balance of NYS CTE concentrators by career cluster. Overall, 41.5 percent of CTE concentrators are female. Female students are significantly overrepresented in Human Services (93.1 percent) and Health Science (85.5 percent). Female concentrators are significantly underrepresented in Transportation, Distribution & Logistics (9.4 percent) and Architecture & Construction (11.1 percent). They are moderately underrepresented in the Manufacturing, Information Technology, and STEM clusters (comprising 20 to 25 percent of each).

Source: NYSED 2022
The big idea: This chart illustrates the distribution of NYS CTE concentrators across career clusters. Percentages shown for each population total 100. Female students are significantly more likely to concentrate in Health Science or Human Services. Male students are significantly more likely to concentrate in Transportation, Distribution & Logistics; Manufacturing; or Architecture & Construction.

Source: NYSED 2022
### DATA: CTE CONCENTRATORS BY GENDER

#### TOP CTE PROGRAMS FOR NON-TRADITIONAL STUDENTS BY GENDER
New York State, 2021-22

<table>
<thead>
<tr>
<th>FEMALE NON-TRADITIONAL CTE PROGRAMS</th>
<th>FEMALE CONCENTRATORS (TOTAL)*</th>
<th>PERCENT FEMALE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culinary Arts/Chef Training</td>
<td>429</td>
<td>50.2%</td>
</tr>
<tr>
<td>Culinary Arts and Related Services, Other</td>
<td>379</td>
<td>53.2%</td>
</tr>
<tr>
<td>Criminal Justice/Police Science</td>
<td>351</td>
<td>46.1%</td>
</tr>
<tr>
<td>Business Administration and Management, General</td>
<td>289</td>
<td>36.4%</td>
</tr>
<tr>
<td>Drafting and Design Technology/Technician, General</td>
<td>277</td>
<td>40.3%</td>
</tr>
<tr>
<td>Engineering Technology, General</td>
<td>252</td>
<td>30.0%</td>
</tr>
<tr>
<td>Robotics Technology/Technician</td>
<td>172</td>
<td>29.4%</td>
</tr>
<tr>
<td>Computer Programming/Programmer, General</td>
<td>152</td>
<td>24.9%</td>
</tr>
<tr>
<td>Architectural Drafting and Architectural CAD/CADD</td>
<td>146</td>
<td>41.7%</td>
</tr>
<tr>
<td>Animal/Livestock Husbandry and Production</td>
<td>135</td>
<td>80.8%</td>
</tr>
<tr>
<td>Cinematography and Film/Video Production</td>
<td>122</td>
<td>47.3%</td>
</tr>
<tr>
<td>Computer Technology/Computer Systems Technology</td>
<td>106</td>
<td>25.9%</td>
</tr>
</tbody>
</table>

*Tables include all programs designated as non-traditional for female students with at least 100 exiting CTE concentrators and all programs designated as non-traditional for male students with at least 15 exiting CTE concentrators in 2021-22.*
**Students Pursuing Careers in Non-Traditional Fields**

<table>
<thead>
<tr>
<th>MALE NON-TRADITIONAL CTE PROGRAMS</th>
<th>MALE CONCENTRATORS (TOTAL)*</th>
<th>PERCENT MALE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse/Nursing Assistant/Aide and Patient Care Assistant</td>
<td>127</td>
<td>10.3%</td>
</tr>
<tr>
<td>Veterinary/Animal Health Technology/Technician and Veterinarian Assistant</td>
<td>111</td>
<td>23.4%</td>
</tr>
<tr>
<td>Medical/Clinical Assistant</td>
<td>67</td>
<td>13.6%</td>
</tr>
<tr>
<td>Cosmetology/Cosmetologist, General</td>
<td>45</td>
<td>2.9%</td>
</tr>
<tr>
<td>Medical Insurance Specialist/Medical Biller</td>
<td>24</td>
<td>40.7%</td>
</tr>
<tr>
<td>Pharmacy Technician/Assistant</td>
<td>21</td>
<td>27.3%</td>
</tr>
<tr>
<td>Dog/Pet/Animal Grooming</td>
<td>19</td>
<td>26.4%</td>
</tr>
<tr>
<td>Child Care Provider/Assistant</td>
<td>19</td>
<td>5.0%</td>
</tr>
<tr>
<td>Dental Assisting/Assistant</td>
<td>15</td>
<td>12.8%</td>
</tr>
<tr>
<td>Administrative Assistant and Secretarial Science, General</td>
<td>15</td>
<td>78.9%</td>
</tr>
</tbody>
</table>

**CTE programs are designated as non-traditional based on national employment statistics (occupations in which one gender traditionally accounts for less than 25 percent of total employment), not student enrollment or participation by gender. For example, although a small majority of Culinary Arts/Chef Training concentrators were female in 2021-22, these students are classified as pursuing a career in a non-traditional field.

Source: NYSED 2023
Supporting Special Populations in New York State Career & Technical Education Programs

3 SINGLE PARENTS, INCLUDING SINGLE PREGNANT WOMEN
Under [Perkins V](#), single parents are defined “as individuals who are unmarried or legally separated and have custody or joint custody of one or more minor children. This group also includes teenagers or women who are pregnant.”

While enrollment data for single parents is not available through NYSED’s Student Information Repository System, the latest figures (2018) from the [U.S. Department of Health and Human Services](#) report that the teen birth rate (births per 1000 females ages 15-19) is 17.4 nationally, representing a historic low. In New York State, the teen birth rate has declined by more than 75 percent since 1991, and at 11.7 it is one of the lowest in the nation (ranked 43 out of 51 states, including the District of Columbia).

Although parenting and pregnant students are a relatively small population, they are particularly vulnerable to dropping out. In this section, we explore ways CTE teachers can support these students with strategies tailored to their specific needs and unique circumstances.
HOW CTE CAN HELP SINGLE PARENTS AND PREGNANT STUDENTS

School completion is considered the most significant educational issue for young parents (Youth.gov n.d.). According to the U.S. Department of Education [PDF]: “Many of these young people reported that, before they became parents, they had been doing reasonably well in school; they also had a strong belief that they could have graduated had they stayed in school.”

A 2018 study of young adults in their 20s found that only 53 percent of women who had given birth as teens had received a high school diploma, as compared to 90 percent of women who did not (Child Trends 2018). Teen fathers are also less likely to graduate high school than their peers (Youth.gov n.d.).

Recent data about this population of students (collected within the last 10 years) are scarce. However, an analysis of data from seven nationwide studies conducted over a 50-year period (NDPC 2022) found that, among female students who had dropped out, 28 percent cited pregnancy as a factor. Additionally, 25 percent of girls and six percent of boys who dropped out indicated that becoming a parent was a factor.
Dropping out of high school because of teen pregnancy and parenting can lead to a number of challenges, including reduced earning potential, lack of development in employment skills, and a higher likelihood of living in poverty. Adolescent parents are more likely to need public assistance and more likely to have low income as adults; their children, in turn, are more likely to experience poorer educational, behavioral, employment, and health outcomes (HHS 2023).

While graduating high school may enable adolescent parents to avoid or navigate economic challenges over the long term, their immediate circumstances can impose significant obstacles to completing their secondary education. For example, research by the Urban Institute cited by The Annie E. Casey Foundation (2020) reported that young parents who work spend an average of 47 hours per week at work and school combined (10 percent more than peers), in addition to their caregiving responsibilities.

Studies indicate that participation in vocational training, such as secondary CTE programs, is associated with higher rates of school completion or receiving a GED among pregnant and parenting students (Youth.gov). In this chapter we propose ways to lower barriers to participation and provide an inclusive learning environment so that these highly vulnerable students can fully participate in and yield maximum benefit from CTE.

Many of these young people reported that, before they became parents, they had been doing reasonably well in school; they also had a strong belief that they could have graduated had they stayed in school.

- U.S. Department of Education, Office for Civil Rights
TITLE IX AND CTE FOR SINGLE PARENTS AND PREGNANT STUDENTS

As you consider ways to support pregnant and parenting students, keep in mind the provisions of Title IX of the Education Amendments of 1972. In general, Title IX prohibits sex discrimination in any education program or activity receiving federal financial assistance, including discrimination on the basis of pregnancy, childbirth, or parental status.

There are a few important implications of Title IX that CTE teachers should consider:

• Title IX applies to all extracurricular programs, including “occupational training.” If students participate in work-based learning programs, partner organizations and worksites must also comply with Title IX.

• Schools may implement special instructional programs or classes for a pregnant student, but they must be comparable to those offered to other students and participation must be completely voluntary. If you are concerned that a particular activity might pose a safety risk for students who are pregnant, lactating, or have recently given birth, you should discuss the situation with them so they can make an informed decision; however, you may not exclude them from the activity if they choose to participate.

• Title IX prohibits sex-based harassment of students, including harassment because of pregnancy or related conditions, so it’s important to promote an inclusive and respectful learning environment.

• All schools must have a designated Title IX coordinator. If you or your students have questions or need further information, your school’s Title IX coordinator can provide referrals or assistance. Their name and contact information must be available to the public.
Be sensitive to students’ individual circumstances. The Department of Health and Human Services observes that “not all teen parents experience the same challenges as a direct result of having a baby as an adolescent,” noting that it is particularly challenging in contexts where teen childbearing is less common. For example, if a student lives in a place or belongs to a sociodemographic group in which teen pregnancy is rare, they are less likely to have peers who are parenting, and their access to resources and services may be limited. Getting to know your students and being receptive to discussing their individual circumstances can help you offer appropriate accommodations and support.
Maintain confidentiality. While teachers do not have the same confidentiality obligations as health professionals, student privacy rights and professional ethics require discretion when discussing a student’s pregnancy or parenting status (NYCLU 2018 [PDF]). If a student confides in you, advise them that you might be required to disclose this information. If you are asked to verify or share information with third parties, consult your administrator or your district’s Title IX coordinator for guidance. During class activities, take care to avoid unintentionally disclosing a student’s pregnancy or parenting status. Conduct any discussions regarding a student’s pregnancy-related needs and accommodations in a private setting outside the classroom.

Create a welcoming and comfortable learning space. Pregnant students or students who have recently given birth may require more frequent breaks to sit down, use the restroom, consume food or beverages, make or receive phone calls, or use a lactation room. They may be late to class more frequently than other students owing to these needs. If possible, offer larger desks or tables, temporary access to elevators, or preferred seating (e.g., a desk closer to the exit).

Reach out. Contact pregnant and parenting students who have dropped out of school and encourage them to return. As appropriate, refer them to the state or federal dropout prevention programs, which conduct outreach and may offer flexible learning options and academic credit recovery programs for eligible students. For example, the Liberty Partnerships Program is a collaboration of 46 higher education institutions across New York State to support at-risk middle and high school students in their academic, social, and emotional development.

Connect them to services. Encourage pregnant and parenting students to seek the assistance of your school counselors or social workers. They may be able to connect students to childcare services, transportation, high school equivalency certification, support groups, or financial resources that could expand their access to CTE programs.
Help students connect participation in CTE to improved outcomes. To motivate students to stay in school, be sure to communicate or demonstrate how participation in your CTE course or program can help prepare them for future educational and employment opportunities. Explain how CTE can increase earning potential, open career paths, and enhance employability to promote their family’s wellbeing.

Combat social isolation with collaborative learning. The emotional and psychological challenges of becoming a parent can be particularly difficult for adolescents, both because they are still maturing and because teen pregnancy often strains relationships (HHS n.d.). Collaborative learning – including team-based projects, small-group discussions, and service learning projects – provides opportunities to connect with peers who share interests.

Build flexibility into the curriculum. The provisions of Title IX require that students be afforded opportunities to make up assignments and exams for excused absences due to pregnancy or related conditions, including recovery
from childbirth (U.S. Department of Education 2013 [PDF]). However, the challenges of balancing school, work, and childcare responsibilities continue after pregnancy. While not specifically mandated by Title IX, consider offering extended or flexible due dates and alternatives to in-person attendance for parenting students as well as expectant mothers.

**Expand access to learning facilities and resources.** CTE courses often have hands-on, practical components that require students to be present in the classroom, workshop, or lab. Providing flexible scheduling and expanding access to facilities, when possible, can accommodate pregnancy-related absences, medical appointments, and child care.

**Integrate life skills into the CTE curriculum.** Employ scenarios and case studies to demonstrate how CTE skills apply to real-world situations, including parenting. Show students how parenting can help them develop valuable transferable skills – such as budgeting, time management, problem-solving, and organization – that are in high demand among employers in all sectors and industries. (See the suggested assignment at the end of this section.)

**Accommodate students’ physical limitations:** Students who are pregnant or have recently given birth may have medical restrictions that limit physical activities. In CTE programs, for example, they may be sensitive to or restricted from exposure to certain materials, have difficulty manipulating or lifting heavy tools or equipment, or may be unable to stand or walk for extended periods. Collaborative activities and demonstrations (live or virtual) in which they observe others performing these tasks may provide alternatives. Note that some programs do require participation in clinical hours or other hands-on learning experiences for certification purposes, so fully remote learning may not be a suitable option for all students.

**Expand your toolkit.** Professional development opportunities can offer more information and strategies for supporting pregnant and parenting students. Your school’s Title IX coordinator and counseling staff may be able to offer customized training sessions, one-on-one consultation, and recommendations.
Transferable skills are general skills that can be applied in a range of occupations, fields, and industries. This assignment is designed to help students identify transferable skills aligned with a specific occupation and determine how they have developed – or could develop – them through their everyday activities and personal interests.

To begin, students will select an occupation or job title to explore, ideally one that is related to their CTE program. New York State’s CareerZone site and the U.S. Department of Labor’s O*Net Interest Profiler can suggest job titles based on students’ interests and aptitudes.

Next, students will research their selected job title or occupation to identify five to 10 relevant transferable skills and five to 10 relevant job-specific or industry-specific skills. Their CTE Employability Profile provides an excellent starting point for this exploration. Additionally, the U.S. Department of Labor’s O*NET Online and the Occupational Outlook Handbook from the U.S. Bureau of Labor Statistics provide reliable, up-to-date information for virtually any job title or occupation.

Based on the findings from their research, each student will prepare a report, infographic, presentation, or another appropriate submission format that outlines transferable and job-specific skills required for their selected occupation, analyzes which of these skills they have already acquired and how they obtained them, and reflects upon how they might acquire or further develop the other skills they identified.

Encourage students to think broadly and creatively about ways they can build their skill set through personal experiences, formal training or education (such as CTE coursework), work-based learning, hobbies, and other avenues.

This assignment is appropriate for all students, but may be particularly relevant for young parents owing to the diverse skills required to raise a child, ranging from empathy and communication to critical thinking and problem-solving to budgeting and time management.
SUPPORT FOR TEACHERS OF SINGLE PARENTS AND PREGNANT STUDENTS

The U.S. Department of Education’s guide Supporting the Academic Success of Pregnant and Parenting Students (PDF) provides a detailed overview of Title IX and answers to frequently asked questions. It includes information tailored to the needs of secondary school administrators, teachers, counselors, parents, and students.

The Institute for Women’s Policy Research’s Student Parent Success Initiative “conducts research and policy analysis, provides technical expertise and assistance, and communicates its research and builds partnerships to lift up the voices of students with children and increase equity in higher education for student parents and other underserved student populations.” While IWPR’s focus is higher education, many of its findings and recommendations may be relevant or adapted for high school students, particularly those who are considering postsecondary education.
Supporting Special Populations in New York State Career & Technical Education Programs

4 STUDENTS EXPERIENCING HOMELESSNESS
The McKinney-Vento Homeless Assistance Act is the primary federal legislation related to the education of students experiencing homelessness (NCHE).

It defines “homeless children and youths” as lacking a “fixed, regular, and adequate nighttime residence,” including those who are:

- Sharing housing with others due to loss of housing, economic hardship, or a similar reason (“doubled up”);
- Staying in motels, hotels, trailer parks, or campgrounds due to lack of alternative adequate housing;
- Staying in emergency or transitional shelters;
- Abandoned in hospitals;
- Staying in a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation;
- Staying in cars, parks, abandoned buildings, substandard housing, bus or train stations, or similar settings; and
- Migratory children who qualify as homeless because they are living in circumstances described above. (NCHE 2021 [PDF])
McKinney-Vento requires educational agencies and schools to “develop, review, and revise policies to remove barriers to the identification, enrollment, and retention” of students experiencing homelessness” and to ensure that they “do not face barriers to accessing academic and extracurricular activities” (NCHE 2017 [PDF]). In this section, we explore ways that CTE programs can proactively address potential barriers to learning and inclusion for these students and motivate them to stay in school until graduation.

PERCENTAGE OF HOMELESS STUDENTS IN PUBLIC SCHOOLS, BY TYPE OF NIGHTTIME RESIDENCE
New York State, 2020-21

Source: NCHE
HOW CTE CAN HELP STUDENTS EXPERIENCING HOMELESSNESS

Homeless students commonly experience multiple episodes of housing instability, which can vary in duration, location, and type of shelter. Shifting circumstances may require students to frequently transfer among schools or districts, significantly disrupting their education, negatively impacting their academic achievement, and increasing their likelihood of dropping out (Grant et al. [PDF]). In 2021-22, the four-year graduation rate for homeless students in New York State was 70 percent, as compared to 88 percent for students who were not homeless (NYSED).

SUBPOPULATIONS OF HOMELESS STUDENTS
New York State Public Schools, 2020-21

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrant</td>
<td>0.3%</td>
</tr>
<tr>
<td>Unaccompanied Youth</td>
<td>7.1%</td>
</tr>
<tr>
<td>Limited English Proficiency</td>
<td>23.5%</td>
</tr>
<tr>
<td>Students with Disabilities</td>
<td>23.6%</td>
</tr>
</tbody>
</table>

Source: NCHE
Further compounding their educational challenges, students experiencing homelessness are more likely than average to be members of other special populations. In New York State, one in four homeless students has a disability (compared to 18 percent of all public school students) and one in four is an English language learner (compared to 10 percent of all students). In addition to the special populations identified in Perkins V, other at-risk and underrepresented youth are also more likely to experience homelessness. For example, 28% of LGBTQ+ youth reported experiencing homelessness or housing instability at some point in their lives, with disproportionately higher rates among LGBTQ+ youth who are Native/indigenous, multiracial, or Black (The Trevor Project 2022).

Career and technical education programs can play an important role in helping young people break the cycle of homelessness. Not having a high school diploma or GED increases a young adult’s likelihood of experiencing homelessness by 350 to 450 percent, and higher levels of education are associated with lower levels of unemployment and higher lifetime earnings (NYSTEACHS; NCHE 2018 [PDF]). However, in New York State, students experiencing homelessness are somewhat underrepresented among CTE concentrators overall (2.9 percent) as compared to all secondary students as a group (3.6 percent). See the table REPRESENTATION OF SPECIAL POPULATIONS BY CTE CLUSTER at the end of this chapter for detailed enrollment data.

Career and technical education programs can play an important role in helping young people break the cycle of homelessness. Not having a high school diploma or GED increases a young adult’s likelihood of experiencing homelessness by 350 to 450 percent.
TEACHERS’ ROLES & RESPONSIBILITIES FOR HOMELESS STUDENTS

The McKinney-Vento Act requires that each state have a State Coordinator for Homeless Education [PDF] who oversees implementation in school districts. Every public school district also has a local homeless education liaison to help identify, enroll, and support the education of students experiencing homelessness. However, the act does not provide guidelines or mandate responsibilities for teachers.

Teachers can directly support students and families known to be experiencing homelessness by helping them understand their legal rights and encouraging them to access support. NYS-TEACHS offers free informational brochures and posters in English and Spanish as well as posters in several other languages. You can also provide referrals to volunteer, non-profit, or faith-based organizations providing services and housing assistance in your community. Post this information publicly or offer materials to all students to avoid singling out specific individuals.

A major challenge is that teachers are not routinely informed of their students’ living situations. Become aware of common indicators and reach out to your local homeless education liaison if you suspect a student may be experiencing homelessness.
COMMON INDICATORS OF HOMELESSNESS

• Lack of educational continuity
• Poor health/nutrition
• Transportation and attendance problems
• Poor hygiene
• Lack of personal space after school
• Social and behavioral concerns
• Reactions or statements by parents, guardians, or students

Excerpted from NCHE [PDF]

Be mindful that information about a student’s living situation is subject to confidentiality protections under the Family Educational Rights and Privacy Act (FERPA). Never share a student’s information with anyone who cannot prove the legal right to receive it. Students experiencing homelessness, particularly unaccompanied youth and domestic violence survivors, are at high risk of violence and victimization (NCHE [PDF]). If you believe a family or student may be in danger, report your concerns immediately to the New York Statewide Central Register of Child Abuse and Maltreatment (SCR) by calling (800) 635-1522. The SCR is open 24 hours a day, seven days a week.

Families and students may be reluctant to disclose or discuss their living situation due to shame, social stigma, and concern about possible consequences (U.S. Department of Education 2016 [PDF]). Therefore, employing inclusive teaching and learning practices and/or trauma-informed teaching strategies that proactively address the social and emotional needs of at-risk and vulnerable students is critical.

Consider the strategies that follow to help you provide an equitable learning experience and promote academic success for students experiencing homelessness.
INCLUSION STRATEGIES FOR STUDENTS EXPERIENCING HOMELESSNESS

Be sensitive to and understanding of the unique needs of homeless students. The National Center for Homeless Education [PDF] reminds teachers that many homeless youths experience trauma before becoming homeless, and the experience of homelessness can expose them to further trauma. You can read about trauma-informed teaching strategies on ASCD’s website or watch a recorded professional development session, “Introduction to Resiliency & Trauma-Sensitivity,” on the CTE TAC’s Professional Development Calendar and Archive.

Challenge implicit bias and assumptions about homelessness. Teachers who continually learn about students’ lives and the barriers they encounter develop more accurate perceptions of their students’ needs and abilities. Research has identified positive impacts on learning for homeless and highly mobile students when teachers consider their affective and non-cognitive abilities and use this information to inform instruction and planning. For example, homeless students may lack certain academic skills, but they are often adept at practical skills that are particularly relevant to the hands-on and experiential learning emphasized in CTE programs. (Moore 2013 [PDF])
Use inclusive language. Students and families may avoid using resources or programs targeted for “homeless” individuals due to shame and stigma. Terms such as “housing insecurity” or “families in transition” may be more acceptable. Use person-first language (“person who is homeless”) to acknowledge that homelessness is often a temporary situation, not a permanent aspect of a student’s identity (Hallett & Skrla 2021).

Promote peer interaction. Research demonstrates that social detachment is correlated with lower academic performance (Moore 2013 [PDF]). Frequent school moves may make it particularly difficult for homeless students to develop positive relationships with peers. Collaborative activities and opportunities for social interaction in the classroom can support engagement and help all students develop interpersonal skills that can enhance their future employability.

Orient new students. Teacher support and peer acceptance have both been shown to positively influence highly mobile students’ attitudes toward school (Gruman et al. 2008, cited in Moore 2013 [PDF]). When new students join your class during the school year, create opportunities for them to introduce themselves and meet their peers. Invite current students to volunteer as “class ambassadors” to help orient and welcome new students. Don’t forget to inform new students of existing classroom guidelines, routines, and procedures. Maintaining a “welcome packet,” creating a welcome video, or setting up an online course repository (such as a shared folder) with current class policies, assignments, and expectations can streamline this process for teachers while allowing new students to begin settling in right away. Have these digital materials available as hard copies whenever possible because students experiencing homelessness may not have reliable, consistent internet access outside of school.

Establish and maintain consistent classroom guidelines. An organized classroom, clear expectations, and a predictable routine provide stability and a sense of control that students may lack in their home lives (Moore 2013 [PDF]). Plan ahead whenever possible, and inform students in advance of any anticipated changes to daily routines, personnel (e.g., substitute teachers), due dates or deadlines, or class schedules (Wisconsin Department of Public Instruction 2011 [PDF]).

Provide access to essential supplies. If possible, offer personal necessities (e.g., spray-on deodorant, feminine hygiene products, snacks), basic school supplies (e.g., pencils, notebooks), and CTE-specific supplies (e.g., spare uniforms, tools, or gear in a location where any student, regardless of their
living situation, can access them if or as needed. Community organizations, local businesses, and graduating students may be willing to donate new or gently used items.

**Ensure that policies are equitable.** Develop attendance, tardiness, and late work policies that do not disproportionately punish homeless students. When a student joins your class during the school year, work with them to establish reasonable due dates for makeup work and upcoming assignments.

**Stay in touch.** With schools increasingly engaging in remote, hybrid, and online instruction, vulnerable students are more likely to fall through the cracks (Hallett & Skrla 2021). Make an extra effort to check on the whereabouts and participation of all students frequently, especially during periods of uncertainty or transition. If your school or district employs an early-warning system, be sure to report any changes in a student’s performance, attendance, or engagement as soon as possible.
Identify and address potential barriers to participation. CTE programs are distinguished by authentic learning opportunities such as site visits, field trips, student organizations, and work-based learning. Participation in these activities can improve all students’ career readiness, promote engagement, and enhance their sense of belonging. The McKinney-Vento Act mandates that schools or districts waive fees and requirements and/or provide access to transportation and equipment to provide equitable opportunities for homeless students. Consult with your local homeless education liaison for more information about programs and support for eligible students.

Build flexibility into the curriculum. Highly mobile students benefit when they have options for when and how they complete their coursework. Be prepared to provide extra time or other accommodations for homework and assignments, acknowledging that homeless students might not have reliable off-campus access to resources such as high-speed internet, printers, computers, school supplies, and work space (U.S. Department of Education 2016 [PDF]). Permitting all students to choose topics and formats...
for assignments, when appropriate, aligns with best practices for **Universal Design for Learning (UDL)** and allows everyone to navigate their personal circumstances while avoiding appearances of “special treatment” for students experiencing homelessness.

**Examine your approach to “homework.”** Allowing students to complete assignments that might typically be considered homework while they are at school ensures that everyone has access to essential resources. This access can be especially critical in CTE programs where students routinely use specialized facilities, materials, or equipment.

**Implement formative assessment.** A significant challenge for teachers is a loss of instructional time when a new student joins their class. Informal intake assessments can help you determine students’ current strengths, weaknesses, and skills to place them at the appropriate level in the classroom quickly (**Moore 2013 [PDF]**). This can be particularly helpful when prior school records are not immediately available, which is often the case with students experiencing homelessness. Ongoing formative assessment provides opportunities for teachers to recognize the knowledge and skills that students have attained, while identifying areas for future improvement. Acknowledging and rewarding progress as well as performance can improve motivation and engagement for students who have had negative experiences in school in the past.

Build students’ sense of accomplishment. Many students experiencing homelessness have had negative experiences in school that can diminish their self-esteem. Break assignments down into smaller components to support feelings of achievement. Award credit for work that is completed, even if it’s only partially done. (**Wisconsin Department of Public Instruction 2011 [PDF]**)

Represent homeless individuals in course materials. As relevant to the subject matter, integrate information and issues related to housing insecurity into the curriculum. Broaden depictions of families and homes within teaching materials to include people who are highly mobile, including those who are homeless, migrant, or in foster care (**Moore 2013 [PDF]**).
Service learning partnerships with relevant community agencies or nonprofit organizations can raise all students’ awareness of and empathy for individuals experiencing homelessness. These partnerships provide a meaningful context in which students can apply the knowledge and skills learned in CTE to contribute to the well-being of their local community. They can also help to connect students experiencing homelessness with potential mentors and role models, relevant programs and services, and future employment or work-based learning opportunities.

Effective service learning includes five essential elements: Identification of a community need, developing a project proposal, designing a solution, implementing the solution over a specified period of time (e.g., three to six months), and evaluating and reflecting on the experience.

Remember that service learning is most beneficial when projects address a specific need identified by the community partner using empathy, rather than focusing on what the students or teacher think the community wants or needs. To get started, bring partners into the classroom (virtually or in person) to engage with students in proposing, evaluating, and selecting project ideas. The processes of needs identification and proposal development provide opportunities for students to develop outreach, negotiation, and communications skills that are essential for entrepreneurs and small business owners and highly sought by potential employers across industries and employment sectors.

LEARN MORE

Strategies and resources for successfully implementing work-based learning, including service learning, are available on the Youth.gov website and the U.S. Department of Education’s Office of Career, Technical, and Adult Education’s website.
SUPPORT FOR TEACHERS OF STUDENTS EXPERIENCING HOMELESSNESS

The CTE Technical Assistance Center of New York’s At-Risk Youth web page includes links to reports and articles that address challenges and opportunities for homeless students and other at-risk populations. The Professional Development Calendar and Archive provides on-demand access to recorded workshops specifically developed for CTE teachers, including “An Introduction to Supporting Homeless and Transient Students.”

The National Center for Homeless Education (NCHE) is a technical assistance center funded by the U.S. Department of Education to support State coordinators, school district liaisons, families experiencing homelessness, and other stakeholders and partners. NCHE provides information and assistance through a comprehensive website, monthly webinars on various homeless education topics, and a national homeless education helpline.

The New York State Technical and Educational Assistance Center for Homeless Students (NYS-TEACHS) provides information, referrals, and training to schools, school districts, social service providers, parents, and others about the educational rights of children and youth experiencing homelessness in New York State.
5

STUDENTS WHO ARE IN OR HAVE AGED OUT OF FOSTER CARE

Photo: Allison Shelley/The Verbatim Agency for EDUimages (CC BY-NC 4.0)
Children and youth in foster care are those in “24-hour substitute care for children placed away from their parents including but not limited to placements in foster family homes, foster homes of relatives, group homes, emergency shelters, residential facilities, child care institutions, and pre-adoptive homes (NYSED).” Children enter foster care because their families are in crisis. Many of these youth have experienced trauma, including neglect, abuse, or unsafe living conditions. As such, they are among the most vulnerable student populations in the United States.

Their vulnerability is compounded by the fact that, as a very small population, the specific needs of students in foster care are often unrecognized or overlooked. At the national scale, a 2012 study found that only 12 percent of youth in foster care participated in any CTE coursework (cited in U.S. Department of Education 2019 [PDF]), as compared to the 88 percent of all high school graduates who earned at least one CTE credit during the same period (U.S. Department of Education 2020 [PDF]).

In New York State secondary schools, youth who are in or have aged out of foster care represented 0.6 percent of all students during the 2021-22 school...
year (NYSED 2022). Of these students, 4.6 percent are CTE concentrators (earning at least three CTE credits), together comprising 0.2 percent of all CTE concentrators (internal data provided by NYSED).

Owing to the small size of this population and the complex circumstances of its members, there is a significant gap in the literature pertaining to the needs, participation, and outcomes of students in foster care who participate in CTE (U.S. Department of Education 2019 [PDF]). At the individual classroom level, teachers may be unaware of the foster care status of students in their classes, much less the potential impacts of foster care placements and transitions on these students’ well-being, engagement in school, and academic performance. The U.S. Department of Education’s Office of Technical, Career, and Adult Education (2019, 6) [PDF] observes: “Doubtlessly, CTE educators would respond when they recognized that a student they teach, or counsel is a youth in foster care, but they may not have sufficient information to take appropriate actions to address the student’s unique needs.”

In this chapter, we explore some of the specific challenges faced by students in foster care and ways in which CTE programs and educators can support them, both immediately and in the long term.

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Doubtlessly, CTE educators would respond when they recognized that a student they teach, or counsel is a youth in foster care, but they may not have sufficient information to take appropriate actions to address the student’s unique needs.

- U.S. Department of Education, Office of Career, Technical, and Adult Education
CHALLENGES FOR STUDENTS IN FOSTER CARE

Although foster care placement is not necessarily a direct cause of academic difficulties, family circumstances and transiency pose considerable risks for students in foster care (McKellar 2010 [PDF]). They are more likely than their peers to struggle academically and to drop out of school before graduation, largely because they experience significantly higher levels of residential and school instability than most other student populations (U.S. Department of Education). In New York State, one-third (34 percent) of children and youth in foster care experience more than two placements each year, meaning their living arrangements change at least three times (Annie E. Casey Foundation 2023). When their living arrangements change, students may have to transfer among schools or school districts, causing them to fall behind academically and making it more difficult to sustain relationships with peers. Those who participate in CTE and extracurricular activities may find that different schools do not offer the same programs, causing further disruption to their academic progress and personal development.

In defining this special population, Perkins V also includes students who have “aged out” of the foster care system. In New York State, youth may leave foster care upon reaching the age of 18; however, they may consent to remain in the system until age 21 (Juvenile Law Center 2023). While they may be eligible for certain transition assistance programs, access to most benefits and services for youth in foster care will end once a student has aged out. Exiting the system without having achieved stability can have long-term negative impacts for former foster youth, including lower rates of postsecondary education and higher rates of behavioral, mental and physical health issues; housing instability and homelessness; substance abuse; unemployment; early parenthood; and incarceration (Annie E. Casey Foundation 2022; Osher et. al 2016 [PDF], Dworsky 2018).
Supporting Special Populations in New York State Career & Technical Education Programs

Like other students who are economically disadvantaged, youth in foster care may particularly benefit from participation in CTE programs. According to recent research, completion of at least three CTE credits halved the likelihood of dropping out of high school for students in foster care. Those with extensive employment experience while in high school, such as the work-based learning offered in CTE, were four times more likely to graduate, and half of these students continued their education into college (cited in U.S. Department of Education 2019 [PDF]).

Authentic, applied learning and explicit instruction on employable skills can build students’ self-reliance and decision-making skills, counteracting the “learned helplessness [that] may impact their ability to take initiative to affect future outcomes” (Gomez et al. 2015 cited in U.S. Department of Education 2019 [PDF]). Learning to connect their lived experience to careers and to translate these experiences for potential employers may even offer these students a competitive edge in a job market that values candidates who demonstrate grit and resilience.

While technical education and experiential learning opportunities are intrinsic to CTE programs, the U.S. Department of Education (2019, 30) [PDF] notes that “CTE educators will often need additional kinds of supports to address the specific needs and skills gaps of students in foster care.” The recommendations that follow offer ways you can leverage the benefits of CTE for these students and learn more about this highly vulnerable and often overlooked special population.
Establish a safe and secure learning environment: Developing predictable and consistent classroom routines and setting clear expectations for both performance and participation can build trust and provide a sense of security that students in foster care may lack in their everyday lives. Clear safety guidelines and protocols and consistent enforcement of safety rules can minimize perceived threats to students’ physical safety. Provide emotional safety by instituting class policies that discourage microaggressions and promote civil and respectful interactions among students.

Acknowledge and celebrate successes, no matter how small. Positive reinforcement can be a powerful motivator for all students, but it may be especially important for foster students who have experienced trauma or setbacks in their personal lives. Break down complex assignments or tasks into smaller, achievable steps and provide positive feedback on students’ progress and strengths to help build their confidence and self-esteem.

Challenge students to fulfill high expectations. Counteract students’ perceptions of helplessness by establishing high expectations that they can achieve through effort and persistence. In addition to helping them recognize their potential, appropriately challenging students can prevent boredom and disengagement and stimulate intellectual curiosity (Osher et al. 2016 [PDF]).
**Provide mentorship and networking opportunities:** Mentors and industry professionals who can offer guidance, support, and networking opportunities can be especially valuable for foster youth who may lack traditional family and community networks. Work-based learning, jobs fairs, career exploration activities, site visits, and guest speakers are all ways to connect students in foster care with caring adults who can help support their career and educational goals.

**Build personal relationships with students.** Students in foster care may lack consistent access to academic and emotional support from adults, which can make it more difficult for them to succeed in school. Positive relationships with teachers, mentors, and school staff have been shown to increase the likelihood that students in foster care will graduate and pursue postsecondary education or CTE training after high school ([U.S. Department of Education 2019](https://www2.ed.gov/about/offices/list/oeaf/cte-reform-report.pdf))

**Build relationships with foster families:** Caretakers play an important role in the lives of students in foster care, but current foster parents often have little to no information about their prior educational performance and needs ([McKellar 2010](https://www2.ed.gov/about/offices/list/oeaf/cte-reform-report.pdf)). Keeping them informed about student progress can support educational continuity when students transfer among schools. Communicating the value of CTE to foster families and raising their awareness of educational and career options enables them to positively influence students’ attitudes toward school and help guide their decision-making and planning for the future.

**Collaborate with others to advocate for students in foster care.** Because numerous disparate systems serve youth in foster care, “siloing” is a major challenge ([U.S. Department of Education 2019](https://www2.ed.gov/about/offices/list/oeaf/cte-reform-report.pdf)). Get to know your students’ team, including their caseworkers, counselors, academic support staff, and special education teachers. These individuals can provide valuable insights into the student’s history and current situation, as well as their specific needs. Proactively communicate with them about students’ progress, opportunities, and challenges to facilitate efficient, coordinated support. For assistance, reach out to your school district’s designated [Point of Contact for Foster Care](https://www2.ed.gov/about/offices/list/oeaf/cte-reform-report.pdf).
Implement **Universal Design for Learning (UDL)**. UDL is an instructional methodology that builds flexibility and choice into the curriculum. Allowing students in foster care to make decisions about their learning promotes engagement and provides a sense of agency and empowerment that increases their likelihood of completing a CTE program of study and obtaining industry-recognized certification (U.S. Department of Education 2019 [PDF]). Providing flexibility around assignment requirements and due dates, as appropriate, can help students in foster care accommodate unpredictable schedules or any physical, emotional, or behavioral health challenges that might arise.

**Emphasize experiential learning.** Hands-on, real-world learning experiences can be particularly effective for students in foster care who may struggle with traditional classroom instruction, have experienced disruptions in their education, or have been offered limited opportunities to explore career paths. Project-based learning, internships, and service learning projects can spark students’ interest in a career or vocational path and demonstrate how their CTE coursework can prepare them for success, increasing their motivation, engagement, and persistence.

Learn more about UDL in our companion resource **SUPPORTING ALL STUDENTS IN NEW YORK STATE CAREER & TECHNICAL EDUCATION PROGRAMS**.
Support executive functioning. Students who have experienced trauma may struggle with cognitive challenges including self-regulation, attention, and memory. Provide guidance and resources on planning, time management, decision making, study skills, and communication to supplement your CTE curriculum. Explain how these transferable skills will benefit students in their future careers and highlight them in assignments and activities whenever possible.

Promote extracurricular activities. Research has documented a lack of CTE-specific resources and information targeted to students in foster care. Ensure all students are aware of work-based learning programs in your community, and share information about your school or district’s career and technical student organizations (CTSOs) or local chapters of national organizations such as SkillsUSA. (A list of CTSOs chartered in New York State is available on NYSED’s website.) In addition to boosting engagement, extracurricular programs are a great way to raise awareness of CTE and support your program’s recruitment efforts among students who are not yet aware of its availability and benefits.

Connect CTE to academic coursework. CTE programs can support academic success by integrating core subjects, such as math and science, into the curriculum. This approach can help students in foster care, who may struggle with traditional coursework, to better understand the relevance and application of academic skills.

Facilitate collaborative learning. Collaborative learning provides opportunities for all students to develop their social and emotional competencies. In CTE programs specifically, students have a unique opportunity to establish relationships with peers who share their interests and goals. By facilitating community within the classroom, teachers can help foster students feel connected to their peers and to the learning process, which can help counteract feelings of isolation or instability.

Assess and document student learning. A perennial challenge for students in foster care is “regrouping” after a new placement (U.S. Department of Education 2019 [PDF]). You can help students navigate these transitions by documenting what they have learned in your CTE courses and assessing their proficiency in core skills. When students transfer schools, this information can be used to place students in appropriate programs, identify outstanding requirements for graduation or credentials (such as the NYS Career Development and Occupational Studies commencement credential [PDF]), and
help their new teachers more quickly and efficiently integrate them into their classrooms. (See the suggested assignment at the end of this chapter for one approach.)

**Offer academic support:** Individualized support such as one-on-one check-ins, supplemental instruction, tutoring, or homework assistance can help students catch up on missed material, compensate for gaps in their education, and transition more smoothly when entering a new school. Make sure students know what resources are available to them and how to access them. Coordinate with your school’s counselors and academic support staff to ensure students get the help they need while making the most of existing programs, services, and resources.

**Expand your toolkit.** Because students in foster care are a small population that has received scant attention in the available literature, teachers may be unaware of how to recognize and respond to the difficulties they encounter. Consider pursuing professional development opportunities to learn more. Training in **trauma-informed teaching** strategies may be especially useful for understanding and responding to the complex needs of foster youth.

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Photo: Allison Shelley/The Verbatim Agency for EDUimages (CC BY-NC 4.0)

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Learn more about trauma-informed teaching strategies by watching the recorded workshop “Introduction to Resiliency and Trauma-Sensitivity” on the New York State CTE TAC website or reviewing the Matrix of Trauma-Sensitive Strategies [PDF] developed by NYSTEACHS.
SUGGESTED LEARNING ACTIVITY
CREATING A DIGITAL PORTFOLIO

By showcasing their work in a digital portfolio, students can demonstrate their proficiencies to potential employers and provide evidence of prerequisite knowledge and skills that may be required for professional certifications or industry credentials. This process can help all students to develop critical thinking, self-reflection, and technological skills that are highly valued by employers.

However, this assignment could be especially helpful for students in foster care or other highly mobile students. A digital portfolio of their CTE coursework provides a record of their learning that can be easily shared with their new teachers, counselors, and academic support staff whenever they change schools. This evidence can help to ensure that they receive credit for the work they have completed and they can continue to build on their skills and knowledge in their new learning environment.

To introduce the assignment, explain the concept of a digital portfolio, including its purpose and benefits. Show several examples to represent a range of formats, approaches, and types of work samples. Help students distinguish the professional tone and structure of a portfolio from social media and other informal ways of sharing information and content.

Identify free or low-cost, easy-to-use tools that students can use to design and host their portfolio, such as Wix, Canva, or Google Sites. (Click the links for instructions on how to get started.) Provide guidance on how to set up a portfolio site, including creating a homepage, adding pages for each CTE course, and organizing content in a logical and visually appealing way.

Encourage students to populate their portfolios with work samples from each CTE course they are taking, including a variety of media types to fully represent their skills and abilities. Guide students to write reflections on what they have learned, both holistically within CTE and in specific courses or learning experiences. Encourage them to think about what they learned, what skills they developed, and how they might apply their learning in the future. Ask students to provide brief explanatory text for each artifact in the portfolio that ties it into one or more of the professional and technical skills listed in their CTE Employability Profile.

Whenever possible, allow students to work on their portfolios during class time to ensure that students in foster care have access to the required technology and to facilitate peer support and collaboration as they learn to use new tools. Once completed, students can share their digital portfolios with the class to receive peer feedback and to practice communicating about the contents of their portfolios.
For additional context and suggestions relevant to this special population, see the accompanying chapters on Economically Disadvantaged Students and Students Experiencing Homelessness in this guide. Guidance provided in our companion publication Supporting All Students in New York State Career & Technical Education Programs may also be relevant, depending on students’ individual circumstances.

The U.S. Department of Education’s Foster Care Transition Toolkit [PDF] is designed to help young adults navigate the process of exiting the foster care system. Consider sharing this guide with students or review it yourself to gain insight into the complex challenges and systems experienced by students in foster care.

The U.S. Department of Education’s Office of Careers, Technical, and Adult Education’s report Outcomes of Youth Transitioning from Foster Care to Adulthood [PDF] is a comprehensive overview and synthesis of existing literature about the needs of students in foster care who participate in CTE. It includes an annotated bibliography of 56 sources that can provide a springboard for further exploration.
YOUTH WITH PARENT(S) ON ACTIVE MILITARY DUTY

Photo: Courtesy of Ulster BOCES
Youth with one or more parents on active military duty have at least one parent or guardian who is a member of the Armed Forces, including the Army, Navy, Air Force, Marine Corps, Coast Guard, or National Guard, and is engaged in full-time, active military service (adapted from NYSED). In this chapter, we’ll refer to these students as “military students” or “students from military families” for brevity.

Owing to the technical and applied nature of many military careers, CTE is an excellent fit for students who have direct or indirect experience with military service and/or might be considering a military career path. In fact, the Department of Defense Education Activity (DoDEA), which manages educational programs on behalf of the Department of Defense, requires that high school students earn two CTE credits in order to graduate, of which 0.5 credits must be in computer technology (U.S. Department of Education [PDF]).

However, military students are often underrepresented in CTE programs. In New York State, 0.22 percent of public secondary students were from military families during the 2021-22 school year (NYSED). Only 4.4 percent of this small population were CTE concentrators, comprising 0.13 percent of all secondary CTE concentrators as a group. In this chapter, we’ll examine some potential barriers to participation and how you can ensure your CTE program is accessible to and inclusive of military students.
Military students are significantly less likely to be economically disadvantaged than their peers. As illustrated in the chart on page 14, just over one-third of military students in New York State were economically disadvantaged in 2022, as compared to over half of all secondary students and large majorities (ranging from 70 percent to nearly 100 percent) of other special populations identified in Perkins V (NYSED). While they are more likely to have access to financial and material resources to support their educational activities, these students encounter significant challenges related to the high mobility of military families.

Military students may experience frequent moves and deployments, which can disrupt their education as well as their sense of continuity and stability. The average military student will move approximately six to nine times during their K-12 schooling, nearly three times more than the average student (U.S. Dept of Education [PDF]). Transferring among schools and districts (or even different states or countries) poses difficulties in maintaining up-to-date educational records, identifying and enrolling in appropriate courses, and providing continuity across their learning experiences. When students enter a school or program during the academic year, they may have gaps in their knowledge and skills relative to their peers, and teachers may lose valuable instructional time assessing students’ needs, determining appropriate placement, and teaching content that students might have missed.
Transitioning among schools during adolescence is a particularly challenging circumstance because of the increased importance of peers and social relationships and participation in school activities and events (Popp et al. 2003 [PDF]). Midyear moves not only disrupt friendships and relationships with teachers but may impact military students’ ability to participate in some sports, student clubs and organizations, or other extracurricular activities. For example, CTE concentrators and participants may find that different schools do not offer the same CTE courses and programs and/or academic credits for their prior participation do not readily transfer among schools or districts (U.S. Department of Education [PDF]).

Transitions among school can be jarring, because “school may be one thing in the life of students that remains constant.” A 2012 research report [PDF] by the Military Child Education Coalition (MCEC) noted that:

School can be a safe haven for students who may be experiencing stress and disruption at home. The daily routine, the known expectations, and the social outlet that school provides can be a respite for students whose home life may be in upheaval due to a deployed parent.

Emotional stress and disruptions to their home lives are common challenges for military students when one or both parents are on active duty. Although many military families have two parents present, they must temporarily function as single-parent households for cycles of six months or longer during long-term deployments (Popp et al. 2003 [PDF]). During these periods of separation, families may face financial burdens, and youth may need to take on additional, sometimes “extraordinary,” responsibilities at home (MCEC 2012, 11 [PDF]). They may also experience limited access to resources and support, especially when they live far from their extended family and friends.

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School can be a safe haven for students who may be experiencing stress and disruption at home. The daily routine, the known expectations, and the social outlet that school provides can be a respite for students whose home life may be in upheaval due to a deployed parent.

- Military Child Education Coalition
In addition to their unique challenges, military students have unique strengths and opportunities. Traits such as self-discipline, resilience, and adaptability can be valuable assets for completing a CTE program as well as equipping them for success in their future careers. They also have access to numerous career development opportunities and services designed for military families and students, such as apprenticeship programs and other career training programs offered by the Department of Defense.

The Interstate Compact on Educational Opportunity for Military Children is designed to make school transitions easier for military families. All 50 states and the District of Columbia participate in the compact, which applies to interstate and overseas moves among Department of Defense schools and public schools.

The compact minimizes educational disruptions by guaranteeing immediate placement in required classes, advanced placement courses, and special education programs while school records are transferred and evaluations are being conducted. It also includes provisions for students to miss school for military-related reasons or to request excused absences before, during or after a deployment.

Under the compact, new schools must facilitate participation in extracurricular activities, which may be CTE-related (such as career and technical student organizations, or CTSOs), even if application deadlines or tryouts have passed. Schools are also encouraged to waive courses required for graduation when students have completed similar coursework at another school.

Visit NYSED’s Interstate Compact web page for answers to frequently asked questions about compact compliance in New York State public schools.
Military students may have career plans and goals that are different from those of their peers. CTE programs allow them to explore these interests, which can promote engagement and motivation. These students may be more likely to enter into careers that require practical, hands-on skills, and CTE allows them to experience what it’s like to work in these fields, informing their career planning and raising their awareness of options for postsecondary education or training. CTE programs can also help students identify and connect with military-specific apprenticeship and training programs that can reinforce what they’re learning in the classroom and may even offer academic credit for participation.

CTE programs are often centered on a tight-knit community of students, teachers, support staff, and community partners. By connecting them with others who share their interests and career goals, CTE can help to combat social isolation and enable military students to build meaningful relationships with peers as well as caring adults who can offer advice, guidance, and mentoring.
Understand the unique circumstances that military families face.
Teachers should be aware of the common challenges that military families face, such as frequent moves, changes in schools, and long periods of separation. This understanding can help teachers be more empathetic and responsive to the needs of these students as a group. Additionally, building personal relationships with military students and their families can help teachers be more empathetic and responsive to their individual needs.

Be flexible and accommodating. Military families are likely to experience frequent or unexpected disruptions to their routines, living conditions, and schedules, which can impact their children’s education. Be flexible and accommodating by providing additional support to military students who have missed class or assignments due to these transitions. Online coursework, independent study options, and personalized learning plans may provide options, when appropriate. Implementing Universal Design for Learning in your CTE courses can help you efficiently and equitably build flexibility into the curriculum.
Create a safe and supportive learning environment. A parent’s deployment has been associated with emotional and behavioral challenges for military youth, including “school performance, lashing out in anger, worrying, hiding emotions, disrespecting parents and authority figures, feeling a sense of loss, and symptoms consistent with depression” (Sogomonyan and Cooper 2010). A predictable, consistent classroom environment can provide a respite from the instability and emotional stress military students may experience while a parent is in active duty. Advance notice of exposure to potentially frightening situations or reminders of their parents’ deployment may help students manage emotional stress. When students react to triggers or stressors, respond in a calm, caring manner (Nebraska Department of Education 2020 [PDF]). Implementing trauma-informed teaching practices can also help to support the emotional and behavioral needs of military students.

Represent military families and careers in the CTE curriculum. Includes images, examples, case studies, and guest speakers who represent the experiences of veterans and active service members. Be sure to include military careers in discussions of potential employment options. This not only creates a more inclusive environment for military students, but it raises awareness of a wider range of opportunities, both for students who are from military families and those who are not.

Recognize and respect cultural differences: Military families may have different traditions, customs, and etiquette. Be respectful of these differences and integrate them into the classroom environment as appropriate. For example, the military tradition of “Hail and Farewell” (Wikipedia) can be an inclusive way to welcome incoming military students and wish them well when they leave your school or program. Because national and international events and political climates can contribute to polarized attitudes about the military, enforce civility and respect in the classroom interactions and be prepared to intervene if hostility or microaggressions occur.

Build community. Military students may feel isolated or disconnected from their peers and teachers, particularly when they are new to a school or program. CTE programs can help build a sense of community by creating opportunities for students to connect with each other and with professionals in their field of interest. Maximize these benefits for military students by promoting collaborative learning, peer instruction and peer support, participation in student organizations such as career and technical student organizations (CTSOs), and extracurricular activities.
Recognize and value their experiences: Military students bring unique experiences and perspectives to the classroom and workforce, including unique opportunities to have observed a wide range of technical applied careers in addition to experiencing different geographic, cultural, and linguistic contexts. CTE programs can help recognize and value these experiences by incorporating them into coursework, helping translate their experiences into employable and transferable skills, and sharing their perspectives and insights with their peers. Consider inviting members of military families to speak to your students about their career paths; they may also be able to connect you with colleagues and associates in other military-related occupations.

Help students access resources and support systems. There are numerous programs and services available to military students and families that offer career development, academic support, financial aid, counseling, and other support systems that can help them succeed in school and beyond. Examples directly relevant to CTE include Military Apprenticeship Programs, the ASVAB Career Exploration Program, Military Career Skills Programs, and Military Spouse and Family Educational Assistance Programs. Ensure that students are aware of these resources and know how to access them. Department of Defense School Liaisons serve as primary points of contact and are available to provide information and referrals.

TEACHING STRATEGIES FOR MILITARY STUDENTS
Adopt a strengths-based approach. View direct or indirect military experience as a strength. Exposure to the military can provide students with a range of skills and experiences that are directly applicable to many careers in CTE fields. By highlighting these connections in the classroom, teachers can help military-connected students see the value and relevance of their military experiences to their future career paths and raise all students’ awareness of a broad range of career options.

Support placement and transitions for incoming and exiting military students. For incoming students with previous CTE experience, use assessment tools such as program task lists and competency checklists to identify the knowledge and skills the students have already attained and any gaps that may impede their participation and success in your program (Pennsylvania Department of Education 2021 [PDF]). As students prepare to leave your program, help them document their proficiencies and communicate what they’ve learned to help them transition more smoothly. See the suggested assignment at the end of this chapter and the CREATING A DIGITAL PORTFOLIO assignment for ways you can incorporate orientation and self-assessment activities into your CTE curriculum.

Maximize opportunities for authentic and applied learning. Military-connected students may be more likely to enter into careers that require hands-on skills. By incorporating real-world projects and scenarios into the classroom, teachers can help students gain practical experience and develop skills that are directly applicable to their future careers. Incorporate military-related examples, employment data, and case studies into your lessons to help all students see how the skills they are learning in CTE could be applied in military careers.
A class orientation guide is a “living document” that provides a snapshot of the learning experiences and projects that the students have completed as a group during the term or school year. In addition to providing all students with a record of what they’ve learned, the orientation guide will serve as a resource for new students, such as students from military families who relocate during the school year, by helping them to quickly get up to speed and feel included in the class.

The guide can be composed in a shared document so all students can access it at any time. To compile the information, students will work in small groups. Groups will take turns serving as the “scribes” or “recorders” for a specific week or unit of study. In addition to providing opportunities for collaboration, working in teams will provide multiple perspectives, ensure recording duties are covered in the event of absences, and help fill gaps in individual students’ comprehension or notes.

Each assigned team might document the following:

- Decisions or classroom policies regarding the week or unit
- A high-level outline of main ideas presented in lectures or discussions
- A glossary of key terms and definitions
- Links to or a summary of instructions for in-class activities, including health and safety guidelines and required equipment and tools (as appropriate)
- Links to or a summary of assignment instructions
- Reflections about their experiences during the week or unit, including the skills and knowledge they learned and how these could benefit them in the future.

Remind them that their goal is not only to capture information, but to present it in a user-friendly format. As appropriate, students might include photos, sketches, snapshots of whiteboard notes, or short videos to document their learning and illustrate their entries. Encourage the class to suggest other sections that could be added to the orientation guide to welcome and integrate new students, such as a gallery of student bios and photos.

This assignment provides an opportunity for all CTE students to reflect on their learning and experiences while supporting the inclusion and success of new students. The information captured in the orientation guide might serve as a scaffold or reference for developing individual student portfolios. (See the suggested student portfolio assignment in this document.) Contributing to the guide could also provide opportunities for students from special populations or others with excused absences to make up participation points for missed classes or assignments.
The Department of Defense’s Military OneSource is a centralized repository of information intended to make moves and transitions easier for military students and families. To learn more and access resources, review the Changing Schools section or watch the recorded webinar “Challenges of Changing Schools” on the Military OneSource website.

Local school liaisons can help with support before and after deployment. They can also help military students with Interstate Compact compliance, including enrolling in school, registering for classes, and graduating on time. A directory of New York State school liaisons is available from Military OneSource.

The Military Child Education Coalition (MCEC) offers professional development institutes, seminars and online courses based on the most current research-informed methods for supporting military-connected children and youth. Continuing Education Units (CEUs) and graduate credit may be available for participants.
7 MIGRANT STUDENTS
A **migrant student** is a student who is — or whose parent, guardian, or spouse is — a migratory worker and who has moved from one school district to another in the preceding 36 months due to temporary or seasonal employment in agriculture or fishing (adapted from NYSED).

Migrant students are the smallest student population for which CTE enrollment data are collected by the New York State Education Department (NYSED). In 2021–2022, 0.06 percent of secondary public school students were classified as migrants, and five percent of these students were CTE concentrators (NYSED).

While migrant students are not a designated **special population** under **Perkins V**, these students are highly vulnerable and very likely to belong to one or more of other special populations, particularly **English language learners (ELLS)**, **economically disadvantaged students**, and **students experiencing homelessness**. For example, among migratory children and youth eligible for the federal Migrant Education Program (MEP) during 2017–2018, approximately 35 percent had moved within the previous 12 months, 41 percent were ELLs, and eight percent were eligible to receive services under the Individuals with Disabilities Education Act (U.S. Department of Education [PDF]).
Although not identified as a special population in Perkins V, the rights of migrant students are addressed in both federal and New York State laws.

The Every Student Succeeds Act (ESSA) of 2015 reauthorized the Elementary and Secondary Education Act (ESEA), which is the primary federal law governing K-12 education in the U.S. It requires states receiving federal funding to provide supplemental services and resources to migrant students, regardless of their legal status. Once identified and found eligible, migrant students have the right to access the same educational programs and services as non-migrant students, including CTE programs.

Title I, Part C of ESEA established the Migrant Education Program (MEP). Schools that receive MEP funding must provide special programs and services for migrant students and they must ensure that migrant students are not subjected to discrimination on the basis of their migratory status or language proficiency. The New York State Migrant Education Program (NYS-MEP) supports migratory children by addressing educational disruption, cultural and language barriers, social isolation, health problems, food insecurity, homelessness, poverty, and other factors that can impact their educational attainment and academic performance and assists them in transitioning to postsecondary education or employment.

The NYSED offers guidance to schools and districts on identifying, enrolling, and providing services to migrant students as well as technical assistance and professional development for teachers and other school staff.

The most significant and unique challenge faced by migrant students is mobility-induced educational discontinuity.

- Ann Cranston-Gringas
  Director of the Center for the Study of Migrant Education, University of South Florida
In order to support migrant students in CTE, it is important to understand their specific needs. Key challenges include:

- **High mobility:** Ann Cranston-Gringas, Director of the Center for the Study of Migrant Education at the University of South Florida, observes that “The most significant and unique challenge faced by migrant students is mobility-induced educational discontinuity” (Education World 2013). Frequent disruptions in their education make it difficult for migrant students to complete long-term programs and track academic credit. With each move, these students may be separated from family members, friends, and teachers, leading to social isolation. Agricultural work sites may be distant from school locations, restricting their access to school and community resources. (Lundy-Ponce 2010)

- **Language barriers:** Approximately 40 percent of migrant students in the U.S. are English language learners, making them five times more likely to be ELLs than all students combined (U.S. Department of Education. 2021 [PDF]). The majority speak Spanish or indigenous languages at home, and they may struggle to understand course content and communicate with their teachers and peers in English.
• **Cultural barriers:** Migrant students often come from different cultural backgrounds and may have different values, customs, and beliefs than their peers and teachers. With less knowledge of the U.S. educational system, their families may be less familiar with available resources and more likely to struggle with navigating systems and processes (Greenberg et al. 2021). While many migrant students are U.S. citizens, their parents and other family members may be undocumented and therefore reluctant to disclose information to schools and educators and/or apply for programs and services designed to address their needs.

• **Socioeconomic disadvantages:** Migrant families are “one of the most chronically impoverished groups” in the U.S. (Madrid 2019, 72 [PDF]). Migrant youth may need to work in order to help support their families and/or they may assume childcare responsibilities while their parents work. Owing to these factors, migrant students have very high rates of absenteeism, and somewhere between 37 and 50 percent drop out of high school (Madrid 2019 [PDF]).

• **Educational disparities:** Migrant students may have had interrupted or limited education both prior to and after arriving in the United States. Implications for CTE programs specifically include a lack of prior experience with technology and/or work-based learning opportunities. Additionally, migrant parents have the lowest levels of educational attainment of any occupational group (Lundy-Ponce 2010), limiting the academic support available to migrant students outside of school.

Photo: Allison Shelley/The Verbatim Agency for EDUimages (CC BY-NC 4.0)
CTE provides skills and knowledge that can help all students gain entry into high-wage, high-growth careers. In doing so, CTE can help migrant students overcome their unique challenges and provides them with a pathway to social mobility and economic stability.

Many CTE programs are particularly well-suited to the needs of migrant students. By exploring different occupations and identifying their educational requirements and job duties, migrant students can gain a better understanding of their options and how to prepare for them, boosting their confidence and ability to make informed decisions about their future. CTE can also help students recognize the value of their prior work experience, language skills, and cultural competencies and guide them to apply, demonstrate, and communicate these qualifications to potential employers.

Read on for specific strategies you can implement to help ensure migrant students have equitable opportunities to participate in and take full advantage of the potential benefits of participating in your CTE program.
Create an inclusive learning environment: A warm and supportive classroom environment can help migrant students feel welcomed and included, especially when they join your class during the school year. Acknowledge and value the cultural and linguistic diversity that migrant students bring to the classroom by encouraging all students to share their experiences and perspectives. Implement culturally responsive teaching practices by integrating case studies, images, examples, guest speakers, and scenarios that represent migrant and other highly mobile students and families (Popp et al., 2003 [PDF]).

Provide social and emotional support: Migrant students may face additional challenges in adjusting to a new school environment, such as homesickness or social isolation. Collaborative learning, peer instruction, and opportunities to socialize with other students can help integrate migrant students into the classroom community and allow them to develop their communication and interpersonal skills. Teachers can also help migrant students navigate the challenges of adjusting to a new environment and culture by connecting them with resources and services, such as tutoring, mentoring, and counseling.
Model the use of inclusive language. Avoid potentially offensive and derogatory terms such as “illegal aliens” or “illegal immigrants” to refer to migrant workers. Alternate terms recommended by ACTE include “migrant workers,” “undocumented workers,” “people who are undocumented,” or “DACA students.”

Set clear expectations: Migrant students may be unfamiliar with the academic expectations of a high school CTE program. Setting clear expectations and providing regular feedback can help them understand what they need to do to succeed.

Build relationships with migrant students and their families. Better understanding migrants students’ backgrounds and experiences can help teachers provide individualized support and guidance. Keeping parents involved and informed can help ensure that migrant students have the support they need at home. Engage families and communities in the educational process by providing resources and information in the students’ native language, inviting them to school events such as open houses, and establishing partnerships with local organizations that serve migrant workers.

Collaborate with colleagues: Reach out to your school or district’s support staff, including school counselors, language specialists, and CTE consultant teachers to ensure that migrant students’ needs are being met and to ensure the best use of available resources, services, and programs.
TEACHING STRATEGIES FOR MIGRANT STUDENTS

Adopt a strengths-based approach: Migrant students often have prior employment, language skills, and cultural knowledge that are an asset in an increasingly diverse society and workforce. Acknowledging and celebrating the cultural strengths of migrant students can help build their confidence and sense of belonging while also demonstrating how their own experiences and backgrounds are relevant to career pathways. See the suggested assignment below for one way you can showcase the value of cross-cultural competency and language skills in any CTE course or program.

Use hands-on learning activities: High school CTE programs often involve hands-on learning activities that can help students understand real-world applications of the concepts they are learning. For migrant students, these activities can help overcome language barriers and make learning more engaging. Students can also work on these tasks in groups or teams with peers who speak their home language, to assist them in comprehending instructions and content.
Support bilingual learning. Whenever possible, support ELLs by providing visual aids, videos or in-class demonstrations, nonverbal communication, and translated materials and resources. Permit them to use dictionaries, glossaries, and digital translation tools to complete assignments and assessments. New York’s statewide RBERN has assembled bilingual glossaries and lists of cognates for core content areas in the most common languages spoken. Industry-specific resources may also be available, such as OSHA’s English-to-Spanish and Spanish-to-English dictionaries. Be sure that any health and safety guidelines are available in translated versions to ensure all students can safely participate in CTE learning activities.

Connect to the community: Connecting migrant students to local businesses and community resources through service learning, work-based learning, field trips, job shadowing, and guest speakers can help them understand how their education can lead to careers, build their social and professional networks, and introduce them to potential role models, mentors, and future employers. These experiences may be especially impactful when they provide opportunities to meet successful former students from migrant or ELL backgrounds.

Offer extra support. After-school tutoring, additional homework support, and one-on-one meetings with teachers can help migrant students catch up on missed material and activities in order to keep up with their peers. Migrant students may also benefit from accommodations such as flexible scheduling that accounts for the demands of seasonal employment and individualized assessments that account for language barriers. Connect them to available resources such as tutoring, counseling, and career guidance to support them in achieving their academic and career goals.

Provide opportunities for academic skill-building. CTE programs can support academic success for migrant students by integrating core subjects, such as reading, math, and science, into the curriculum. Doing so can help to address gaps in their prior learning and education in addition to demonstrating how academic skills and coursework can contribute to their future education or employment.

Learn more. Deepen your understanding of the challenges migrant students face and ways you can address them in your courses by pursuing professional development opportunities. Workshops, training, and resources about the needs of English language learners, economically disadvantaged students, and homeless and highly mobile students may all yield valuable insights. Develop teaching strategies rooted in bilingual and multilingual instruction, Universal Design for Learning, and culturally responsive teaching to best serve the needs of these vulnerable and underrepresented students.
SUGGESTED LEARNING ACTIVITY
CREATING A JOB AID FOR ENGLISH LANGUAGE LEARNERS

A job aid is any tool, device, or guide that provides simple instruction on how to complete a task or achieve a goal, typically used to introduce new steps in a process or to help people remember how to complete a task more efficiently. In this assignment, students will apply their CTE knowledge to develop a job aid for a simple task while considering the needs of diverse users.

To begin, divide students into small groups. Whenever possible, form mixed groups of students with different language backgrounds and skills. In addition to English language learners and multilingual students, don’t forget about students who use other forms of communication when assembling teams. For example, students who use sign language or assistive technologies and students who prefer to create or consume alternatives to text (audio, video, or graphics) can provide unique insights relevant to this assignment.

1. Direct each team to choose a task that is common within your CTE concentration or program. For example, culinary arts students might choose a preparation technique or basic recipe, information technology students might choose a routine troubleshooting protocol or software installation instructions, or health sciences students might choose how to take a blood pressure reading or perform CPR.
2. Next, each team should identify the key steps involved in completing their chosen task and write them out using clear, concise language.
3. Teams will then collaborate to design a job aid that will help someone perform the task by completing each of the key steps they identified. The job aid should be designed with both English language learners and English speakers in mind, and it should be visually appealing and easy to understand.
4. Each team should test their job aid by sharing it with a group of English language learners and a group of English speakers. Based on feedback, they should make any necessary adjustments to ensure the job aid is comprehensible to both groups.
5. To conclude the activity, each group will present their job aid to the class, explaining the task they chose, the key steps involved, and how they designed the job aid to be accessible to both English language learners and English speakers.

This assignment can be customized for a wide variety of CTE concentrations to build students’ empathy and cultural competency while applying their CTE knowledge and skills to a real-world scenario.

LEARN MORE

The University of San Diego Online has a helpful blog post by Tameka Harris that offers descriptions and visual examples of several possible formats as well tips for creating effective job aids.
SUPPORT FOR TEACHERS OF MIGRANT STUDENTS

In New York State, eight regional Migrant Education Tutorial & Support Services (METS) Program Centers provide a variety of services and opportunities for migrant children and their families. Visit the METS website for more information, including contact information for program centers and recruiters.

The New York State Migrant Education Program (NYS-MEP) provides resources and support for educators, including professional development opportunities, instructional resources, and technical assistance in meeting legal requirements for serving migrant students. For example, MEP can help schools and teachers ensure that migrant students are identified and served appropriately, provide assistance with credit transfer and academic planning, and offer guidance on cultural and linguistic considerations.

NYSED supports seven Regional Bilingual Education Resource Networks (RBERNs) covering all areas of New York State and one statewide RBERN. Each RBERN provides regionally based resources with the goal of improving instructional practices and educational outcomes for ELLs. You can also consult your school or district’s English as a New Language (ENL) and Bilingual Education program administrators and coordinators for further information or assistance.

The CTE Technical Assistance Center of New York’s At-Risk Youth web page includes links to reports and articles that address challenges and opportunities for migrant students. CTE TAC’s English Language Learners page includes a curated list of links to books, articles, videos, and more that highlight information and strategies specifically targeted to teaching ELLs in CTE programs. For upcoming and archived professional development opportunities relevant to migrant students and other special populations, visit the CTE TAC’s Professional Development Calendar and Archive.

Photo: Allison Shelley/The Verbatim Agency for EDUimages (CC BY-NC 4.0)
APPENDIX
## SUPPLEMENTAL DATA

### REPRESENTATION OF ETHNIC GROUPS BY CTE CLUSTER

**New York State, 2021-22**

<table>
<thead>
<tr>
<th>Cluster</th>
<th>White</th>
<th>Hispanic / Latino</th>
<th>Black or African American</th>
<th>Asian or Native Hawaiian/Other Pacific Islander</th>
<th>Two or More Races</th>
<th>American Indian or Alaskan Native</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL CTE CLUSTERS</strong></td>
<td><strong>53.4%</strong></td>
<td><strong>23.1%</strong></td>
<td><strong>11.9%</strong></td>
<td><strong>8.9%</strong></td>
<td><strong>2.0%</strong></td>
<td><strong>0.8%</strong></td>
</tr>
<tr>
<td>Agri., Food &amp; Nat Res.</td>
<td>70.7%</td>
<td>15.1%</td>
<td>7.2%</td>
<td>4.6%</td>
<td>1.4%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Arch. &amp; Const.</td>
<td>57.5%</td>
<td>27.1%</td>
<td>9.2%</td>
<td>3.9%</td>
<td>1.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Arts, AV Tech &amp; Comm.</td>
<td>35.8%</td>
<td>33.1%</td>
<td>15.8%</td>
<td>12.4%</td>
<td>2.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Business Mgmt. &amp; Admin.</td>
<td>46.7%</td>
<td>24.8%</td>
<td>12.9%</td>
<td>12.7%</td>
<td>1.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>51.1%</td>
<td>21.9%</td>
<td>16.8%</td>
<td>6.3%</td>
<td>2.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Finance</td>
<td>85.1%</td>
<td>2.7%</td>
<td>3.2%</td>
<td>4.5%</td>
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</tr>
<tr>
<td>Health Science</td>
<td>48.2%</td>
<td>28.4%</td>
<td>16.5%</td>
<td>4.2%</td>
<td>2.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>46.5%</td>
<td>24.8%</td>
<td>21.9%</td>
<td>3.1%</td>
<td>3.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Human Services</td>
<td>65.2%</td>
<td>19.3%</td>
<td>11.1%</td>
<td>1.4%</td>
<td>2.5%</td>
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<tr>
<td>Information Technology</td>
<td>38.9%</td>
<td>25.4%</td>
<td>17.4%</td>
<td>15.2%</td>
<td>1.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Law, Public Safety, Cor. &amp; Sec.</td>
<td>65.9%</td>
<td>21.4%</td>
<td>9.2%</td>
<td>1.6%</td>
<td>1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>54.7%</td>
<td>12.2%</td>
<td>6.8%</td>
<td>23.4%</td>
<td>1.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Marketing</td>
<td>67.1%</td>
<td>13.2%</td>
<td>11.2%</td>
<td>5.6%</td>
<td>2.6%</td>
<td>0.3%</td>
</tr>
<tr>
<td>STEM</td>
<td>54.3%</td>
<td>12.9%</td>
<td>8.8%</td>
<td>21.9%</td>
<td>1.7%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Transp., Distr. &amp; Logis.</td>
<td>60.5%</td>
<td>22.8%</td>
<td>6.0%</td>
<td>8.4%</td>
<td>1.4%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>
Datasets provided by the New York State Education Department (NYSED) use the following abbreviated titles for CTE Career Clusters.

<table>
<thead>
<tr>
<th>Abbreviated Title</th>
<th>Full Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri., Food &amp; Nat. Res.</td>
<td>Agriculture, Food &amp; Natural Resources</td>
</tr>
<tr>
<td>Arch. &amp; Const.</td>
<td>Architecture &amp; Construction</td>
</tr>
<tr>
<td>Arts, AV Tech &amp; Comm.</td>
<td>Arts, A/V Technology &amp; Communications</td>
</tr>
<tr>
<td>Business Mgmt. &amp; Admin.</td>
<td>Business Management &amp; Administration</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>Education &amp; Training</td>
</tr>
<tr>
<td>Finance</td>
<td>Finance</td>
</tr>
<tr>
<td>Health Science</td>
<td>Health Science</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>Hospitality &amp; Tourism</td>
</tr>
<tr>
<td>Human Services</td>
<td>Human Services</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Law, Public Safety, Cor. &amp; Sec.</td>
<td>Law, Public Safety, Corrections &amp; Security</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Marketing</td>
<td>Marketing</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering &amp; Mathematics</td>
</tr>
<tr>
<td>Transp., Distr. &amp; Logis.</td>
<td>Transportation, Distribution &amp; Logistics</td>
</tr>
</tbody>
</table>
GLOSSARY OF TERMS

At-risk: Students or groups of students who are considered to have a higher probability of failing academically or dropping out of school. (The Glossary of Education Reform)

Belonging: “The feeling of security and support when there is a sense of acceptance, inclusion, and identity for a member of a certain group.” (Cornell University)

Career and technical student organizations (CTSOs): Organizations for CTE students that enhance learning through contextual instruction, leadership and personal development, applied learning, and real-world application. (National Coordinating Council for Career and Technical Student Organizations)

Children and youth in foster care: A student who is in 24-hour substitute care for children placed away from their parents including but not limited to placements in foster family homes, foster homes of relatives, group homes, emergency shelters, residential facilities, child care institutions, and pre-adoptive homes. (NYSED)

CTE concentrator: “At the secondary school level, a student who has completed at least two course credits in a single Career and Technical Education (CTE) program of study or career cluster.” (U.S. Department of Education)

Culturally responsive (or culturally relevant) teaching: A pedagogical approach that “empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Ladson-Billings 2014, cited in Faculty Focus).

Diversity: “Includes but is not limited to race, color, ethnicity, nationality, religion, socioeconomic status, veteran status, education, marital status, language, age, gender, gender expression, gender identity, sexual orientation, mental or physical ability, genetic information, and learning styles.” (NYS Board of Regents [PDF])

Economically disadvantaged student: A student who participates in, or whose family participates in, economic assistance programs such as the free or reduced-price lunch programs, Social Security Insurance, Food Stamps, Foster Care, Refugee
Supporting Special Populations in New York State Career & Technical Education Programs

Assistance, Earned Income Tax Credit, Home Energy Assistance Program, Safety Net Assistance, Bureau of Indian Affairs, or Family Assistance: Temporary Assistance for Needy Families. (NYSED)

**English language learner:** A student who, by foreign birth or ancestry, speaks or understands a language other than English and who scores below a State-designated level of English proficiency on language assessments. (NYSED Office of Bilingual Education and World Languages [PDF])

**Equity:** “The guarantee of fair treatment, access, opportunity, and advancement for all while striving to identify and eliminate barriers that have prevented the full participation of all groups.” (NYS Board of Regents [PDF])

**Executive functioning:** “The mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully.” (Harvard University)

**Formative assessment:** Methods that teachers use to evaluate student comprehension, learning needs, and academic progress during a lesson, unit, or course, with the goal of improving instruction or learning while it’s happening. (Adapted from The Glossary of Education Reform)

**Growth mindset:** The self-perception that one’s basic abilities such as intelligence or talent are not innate, fixed traits, but can be developed through dedication and effort. (Adapted from The Glossary of Education Reform)

**Implicit bias:** A mental process that stimulates negative attitudes about people who are not members of one’s own “in group.” Implicit bias operates on a subconscious level, meaning that individuals are often unaware of its influence on their thoughts and behaviors; therefore, it is sometimes referred to as “unconscious bias.” (Adapted from National Education Association)

**Inclusion:** “Authentically bringing traditionally excluded individuals and/or groups into processes, activities, and decision/policy making in a way that shares power and ensures equal access to opportunities and resources.” (NYS Board of Regents [PDF])

**Inclusive language:** “Language that avoids the use of certain expressions or words that might be considered to exclude particular groups of people.” (Collins Dictionary)
**Inclusive teaching and learning**: A pedagogical approach that “recognises all students’ entitlement to a learning experience that respects diversity, enables participation, removes barriers, and anticipates and considers a variety of learning needs and preferences.” (Imperial College London)

**Informational interview**: An informal conversation between someone who is interested in a particular field or career and someone who works in that field or career. Unlike a job interview, the goal is to gather information, not to find a job opening. (Adapted from UC Berkeley Career Center)

**Job aid**: Any tool, device, or guide that provides simple instruction on how to complete a task or achieve a goal, typically used to introduce new steps in a process or to help people remember how to complete a task more efficiently. (Adapted from UC San Diego Online)

**Marginalized**: A term used to describe groups who are discriminated against or excluded — politically, socially, and/or economically — due to an unequal balance of power. May refer to past discrimination, as in the usage “historically marginalized learners.” (ACTE [PDF])

**Microaggression**: “The everyday, subtle, intentional—and oftentimes unintentional — interactions or behaviors that communicate some sort of bias toward historically marginalized groups.” (Limbong 2020)

**Migrant student**: A student who is – or whose parent, guardian, or spouse is – a migratory worker and who has moved from one school district to another in the preceding 36 months due to temporary or seasonal employment in agriculture or fishing. (Adapted from NYSED)

**Non-traditional fields**: Occupations or fields of work, such as careers in computer science, technology, and other current and emerging high skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed. (U.S. Department of Education, Office of Career and Technical Education)

**Occupational segregation**: Circumstances in which “one demographic group is overrepresented or underrepresented among different kinds of work or different types of jobs.” (Washington Center for Equitable Growth)
**Occupational sorting:** The process by which men and women pursue different roles in the workforce in response to social, cultural, family, economic, educational, or other factors.

**Perkins V:** The Carl D. Perkins Vocational and Technical Education Act of 2006, as Amended by the Strengthening Career and Technical Education for the 21st Century Act ("Perkins V"), is federal legislation whose purpose is to develop more fully the academic knowledge and technical and employability skills of secondary education students and postsecondary education students who elect to enroll in career and technical education programs and programs of study. ([U.S. Department of Education, Office of Career and Technical Education](https://www2.ed.gov/about/offices/list/oca/cte/index.html))

**Person-first/people-first language:** A form of linguistic etiquette in which a trait or diagnosis is conveyed as something a person has rather than who they are — e.g., “a person with diabetes,” not “a diabetic.” ([Edutopia](https://www.edutopia.org/topic/person-first-language))

**Scaffold (or scaffolding):** Temporary and flexible instructional supports that help make rigorous grade-level curriculum accessible to all students. ([NYSED Office of Bilingual Education and World Languages](https://www.nysed.gov/bilingual-education-world-languages))

**Service learning:** A teaching and learning strategy that connects academic curriculum to community problem-solving. ([Youth.gov](https://www.youth.gov/))

**Special populations:** Students who must overcome barriers that may require special consideration and attention to ensure equal opportunity for success in an educational setting ([U.S. Department of Education](https://www2.ed.gov/about/offices/list/oca/cte/index.html)). As defined by Perkins V, special populations demographic groups include: (A) individuals with disabilities; (B) individuals from economically disadvantaged families; (C) individuals preparing for non-traditional fields; (D) single parents, including single pregnant women; (E) out-of-workforce individuals; (F) English learners; (G) homeless individuals; (H) youth who are in, or have aged out of, the foster care system; (I) youth with a parent who is a member of the armed forces and is on active duty; and (J) migrant students (secondary only). (Abridged from [U.S. Department of Education, Office of Career and Technical Education](https://www2.ed.gov/about/offices/list/oca/cte/index.html))

**Stereotype threat:** A psychological threat experienced by members of a marginalized group, experienced as apprehension about engaging in particular activities that may be regarded as confirming negative stereotypes. (Adapted from [National Institutes of Health](https://www.nia.nih.gov/))

**Strengths-based approach:** An educational approach that “asks what assets students have drawn on or developed in order to succeed so far and designs curricula, systems, and supports to take advantage of those assets.” ([Every Learner Everywhere](https://www.everylearneverwhere.org/))
**Student(s) with disabilities:** Under Section 504 of the Americans with Disabilities Act, a student with a disability has been determined to: 1) have a physical or mental impairment that substantially limits one or more major life activities; or 2) have a record of such an impairment; or 3) be regarded as having such an impairment. ([U.S. Department of Education](https://www2.ed.gov/about/offices/list/ope/section504/index.html))

**Student(s) experiencing homelessness:** A student who lacks a fixed, regular, and adequate nighttime residence. ([NYSED](https://www12.cssd.ny.gov/pts/library/Portals/12/Website_Documents/Publications/11-15/12-10-11_Homeless_Guidance.pdf))

**Transferable skills:** Skills that are developed in one context but which can be used in other contexts ([Oxford Reference](https://oxfordreference.com/ FName=Transferable%20skills)); general skills that can be applied in various fields, working environments, and industries ([Emory University Career Center](https://careers.emory.edu/transferable-skills/)).

**Trauma-informed teaching:** An educational approach in which teachers and school staff learn about how trauma impacts children’s behaviors, learning, and relationships and then intentionally create an atmosphere that supports each student, demonstrates empathy, and teaches resilience. (Adapted from [Resilient Educator](https://www.resilienteducator.com/))

**Unaccompanied youth:** A homeless child or youth not in the physical custody of a parent or guardian, as defined by the McKinney-Vento Homeless Assistance Act. ([NCHE](https://www2.ed.gov/about/offices/list/ope/section504/index.html))

**Underrepresented:** A term used to describe groups who are less represented in a specific area than in the general population. For instance, students with disabilities may be underrepresented (or overrepresented) in certain CTE programs of study. ([ACTE](https://www.acte.org/))

**Underserved/under-resourced:** Terminology used to describe groups who experience barriers to accessing vital resources, often due to geographic location, socioeconomic status, disability, etc. ([ACTE](https://www.acte.org/))

**Universal Design for Learning:** An approach to teaching and learning that seeks to accommodate the needs and abilities of all students by proactively eliminating unnecessary barriers to learning.

**Youth with one or more parents in active military duty:** Student(s) with one or more parents or guardians who is a member of the Armed Forces and on active duty. The Armed Forces include the Army, Navy, Air Force, Marine Corps, the Coast Guard, and National Guard. Active duty means full-time duty in the active military service of the United States. ([NYSED](https://www12.cssd.ny.gov/pts/library/Portals/12/Website_Documents/Publications/11-15/12-10-11_Homeless_Guidance.pdf))
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[https://www.ascd.org/el/articles/trauma-informed-teaching-strategies](https://www.ascd.org/el/articles/trauma-informed-teaching-strategies).


Supporting Special Populations in New York State Career & Technical Education Programs


https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html.


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